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Volume One

Issue Twelve

inside the Underground

cover art by Rich Borge

November 1996

departments

4. Inside the Underground: Water, partially hydrogenated journalism (contains one or more of the following: interview with industry visionary, bad '80s jokes, lament for anonymity), Yellow 6, cultural commentary (from concentrate). Because only natural products are used, taste, color and body may vary.

6. Masthead: A listing of people who are married to this magazine.

8. Contributors: A listing of people who are merely flirting with this magazine.

9. Hyperlink—The Letter from the Editors: Who sucked out the *feeling*? Our sneaking suspicions about why the Web isn't so happy-go-lucky anymore.

10. E-Mail: Please do not suffer from the delusion that magazine publishing is some kind of one-way street where we talk and you are forced to shut up and listen. For the three glorious pages of "E-Mail," the floor is yours, to be "guest columnists" if you will, ranting and raving about whatever strikes your fancy.

14. Top Ten: Our exacting scientific research indicates that you will enjoy at least six of these sites.

16. Alt.culture.watch: Weird Al gets snippy with a fan, what you'll find at www.fat.com and a nifty photo of Siegfried and Roy.

18. Netline: The unfortunate death of anon.penet.fi, sites that complain about the government and sending online birthday greetings to *IU*'s mailguy, Tiny.

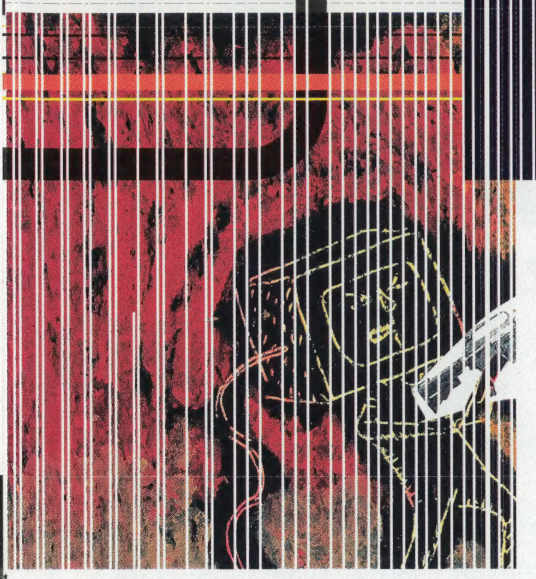
24. Weird on the Web: Witness bad teen angst poetry, the driveways of the rich and famous and the bountiful variety of trash cans at Disney World.

59. 403 Forbidden: Testimony that hacking is in fact the coolest game on Planet Earth from an atypical computer whiz who uses her super powers to crack down on spammers and teach healthy hacking.

67. Spotlight—A Closer Look at This Month's #1 Site: Turn up your Izod collar, spike your hair and moonwalk on over to the '80s Server for some of the tunes, tube and tastes that shaped the decade of excess.

68. Reviews: Sometimes, when we review things, it's really difficult to decide on a star rating. There are so many layers and levels of quality and

features



30. THE FUTURE OF WAR
BY MICHAEL SHAPIRO
In the last 100 years, modern warfare has progressed from cavalrymen mounted on horses to smart bombs, Stealth fighters and thermonuclear warheads. Heading into the next century, what new weapons pose the biggest threat? Plus: A conversation with information security expert Winn Schwartau by Dave Sims.

36. HOW TO BUILD A UFO...STORY
BY RICHARD THIEME
The UFO subculture or, for some, the UFO religion on the Internet, is a huge supermarket of images and words. Everything is for sale—stories and pictures, membership in a community, entire belief systems. But what are we buying? The meal? Or the menu?

42. THE REBEL SELL
BY SUSAN KUCHINSKAS
In the middle of this saga of hostile server takedowns, alternate domain names and search engine trickery, is Eugene Kashpureff. Is he a revolutionary Internet insurgent, or just an opportunist looking to turn a quick buck? Call him what you will...just watch out for his killer 'bots.

48. A CARNIVAL OF CASH
BY SIMSON GARFINKEL
There's lots of silver crossing lots of palms online. In the midst of a raucous and unmediated carnival of buying, there are three rival companies competing to separate you from your digital money. The second in a three-part series on online advertising and payment systems.

54. TOY STORY
BY SARAH ELLERMAN
Bringing toys out of the attic and onto the Net, collectors showcase their prize playthings on Web sites around the world. Interviews with those fanatic souls who hoard action figures, LEGO and yo-yos and live to tell their tales online.

60. ON THE NET WITH...NEGATIVLAND
BY PAT SANDBERG
First they took on U2. Now Negativland's Mark Hossler speaks his mind about copyrights, computers, cyberspace, collages and lots of other topics that start with letters of the alphabet other than "c."

64. FAQ:RAPPIN' WITH MOLECULAR MIX-MASTER DR. DRE'
BY LAUREN GONZALEZ
If hindsight is 20/20, take a sharp look backward with The Foresight Institute's visionary Dr. Eric Drexler, and examine the future of technology and the Web.

expectation, that summing something up as a "three-star product" leaves us with a feeling of dissatisfaction. That's why we write little essays next to the ratings. Still, it bothers us, especially late at night.

70. Flamethrower: A big and famous consulting company made a goofy cartoon to trick you into spilling the beans about your consumer preferences. Find out why Waldo's crystal ball is cracked.

71. WebGuide: The WebGuide reviewers are like the scrubbing bubbles of the Internet: they do the work, so you don't have too. From suds to duds, we rate 'em all.

81. Web Pages We're Glad We Can't Find: *Babe III: Project Net Pig* and other films from Netsploitation Studios.

82. At Large: In the spectrum of man to machine, getting old is something like getting obsolete.

NOVEMBER 1996

VOLUME ONE ISSUE TWELVE

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Use the mini-map to **plan** troop positioning.

Douse the enemy with **boiling oil** — but beware of flaming arrows!

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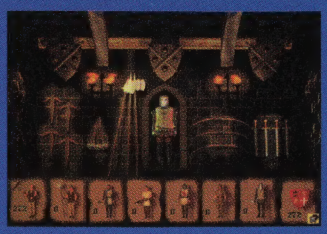

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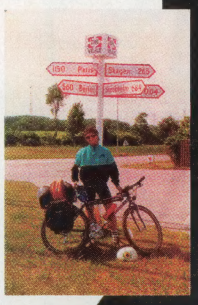
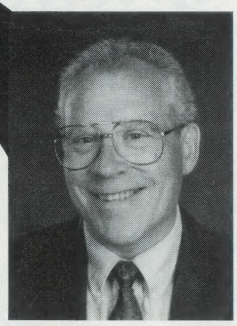
This month's cover art comes once again from illustrator **Rich Borge** at gravity workshop. Although Rich is probably hesitant to admit this, the UFO piece was heavily influenced by the murals at the Galaxy Diner in New York. (**gravitywks@aol.com**)



Michael Shapiro's disillusionment began when he learned that Spinal Tap is not a genuine heavy-metal band. It increased when he uncovered that the Energizer Bunny is powered by a small nuclear device, and reached its zenith when he found out that Geraldo Rivera's real name is Jerry Rivers. Propelled by his disillusion, Shapiro ("The Future of War") walked away from a promising career as a newspaper reporter and wandered around Central America searching for truth, beauty and the ultimate tamale. When he came back to the United States, he spent time washing dishes at a communal retreat center before landing a job with O'Reilly & Associates' Global Network Navigator. This led to a job as a founding editor of the online magazine Web Review (www.webreview.com). Shapiro is completing a book entitled *Net.Travel: How Travel Pros Use the Internet* to be published by O'Reilly & Associates as part of the Songline Guides series.(**shapiro@songline.com**)



Richard Thieme ("How to Build a UFO...Story"), owner of ThiemeWorks, is a professional speaker, consultant and writer. His focus is the impact of computer technology on people and organizations. Called "a prominent American techno-philosopher" by *LAN Magazine* in Australia, he helps people understand the relationship of computer networks to their lives and how to stay flexible during times of accelerated change. He works with businesses, the government and school districts on everything from the transformation of religion in cyberspace to the stresses of working in virtual organizations. In his spare time, he is a volunteer state director of MUFON (Mutual UFO Network) in Wisconsin. (**rthieme@thiemeworks.com** or **73317.3035@compuserve.com**)

Susan Kuchinskas' ("The Rebel Sell") checkered job history—stewardess, publicity director, dancer, housepainter, library assistant—left her no alternative but to become a writer. Based in the Bay Area, she covers digital technology, consumer health and design. Her work has appeared in *Wired*, *Worth*, the *Los Angeles Times* and the *San Jose Mercury News*. In her spare time, she tries to be disgustingly healthy. (**hautlynx@sirius.com**)

Brian Rea (art for "Carnival of Cash") is a Baltimore-based artist who has been doing freelance illustration for three years. Originally from New England, Rea says he rediscovers the region's soul in his three-dimensional work by taking trips back home. "My neighbors have some pretty amazing things in their yards: old bird houses, windmills, funny mail boxes...stuff you look at because it is completely without style—stuff you're drawn to because it is real." Rea's past clients include: *Ray Gun*, *The Utne Reader*, *Mondo 2000*, *Psychology Today*, *Byte Magazine*, *Forbes*, *Business Week*, *U.S. News and World Report*, Merrill Lynch and the National Institute of Health.

Joe Fielder ("Reviews") likes to think of himself as the happy median between Leonard Cohen and Mecha-Godzilla. Through the wonder of RealAudio, VDOLive and text, he can be currently heard, seen and read on Sendai's console and computer gaming Web site NUKE, at **http://www.nuke.com**. Since his recent marriage to *IU*'s assistant editor, he's affectionately referred to around the office as Mr. Lauren Gonzalez. (**Joe_Fielder@zd.com**)

letter from the editors

hyperlin

"Who sucked out the feeling?"

While that Nada Surf song was assaulting the airwaves this past summer, we couldn't help but feel that the same base sentiment expressed in its chorus echoed our feelings about the Internet.

To put it more simply: When did the Internet stop being fun? In the last 12 months the Internet has changed. Basically the transformation (we won't call it an evolution) can be traced to two major sources: money and lawyers.

Penn Jillette, guerrilla magician and occasional cyberpundit, was recently quoted as saying he welcomed the infusion of money into the online arena. His reasoning was that it takes money to develop decent content. The implication was that with money, generated by advertising, sites could afford more bells and whistles like video streaming and RealAudio soundtracks. While money certainly can enhance a site, it's not a foolproof panacea. Throw lots of money at a crappy idea and you still have a crappy idea.

Before there was money to be made on the Net, there were people out there creating things just because they thought it would be cool to do so. It was this free-wheeling, truly democratic atmosphere that made the Net a great place to explore. You never knew what your were going to find. Back then, sites just kind of...appeared. You heard about a site from a friend, or better yet, some great cutting-edge magazine.

Now sites are launched with pomp and circumstance. Don't get us wrong. We're not against commercial sites. Many of them have become indispensable sources of information. It just seems that with so many big kids building huge sand castles, it's harder to find the smaller, more passionate masterpieces.

And that brings us to the lawyers. With so much money potentially at stake on the Web, anyone who can afford to has hired lawyers to protect their piece of the pie. The incidents over domain name fights have been well documented in our pages, but recently, lawyers have been looking beyond URLs and actually scrutinizing content on the Web.

For example:

*A student had to take down his Holden Server which generated random quotes from *The Catcher in the Rye*, after receiving a cease and desist letter from J.D. Salinger's lawyers.

*George Myers Jr. is now locked in a court battle with John F. Kennedy, Jr. over the former's Web site, "george jr."

*TV Bytes, which stored audio files of hundreds of TV theme songs, has been shut down.

*Both the UWP Lyrics Server, a storehouse of song lyrics, and The Digital Tradition, an archive of 5,600 folk song lyrics, are fighting for their lives.

*The Make James Earl Jones Speak page, in which you could mix and match sound bytes on Jones' unmistakable baritone to create surreal resonant sentences, was also shut down after several letters from Darth Vader's lawyers.

This being our 12th issue, it's a good time to reflect—a look back at our first issue shows how much the Internet has changed. In that issue, we profiled two sites produced by amateur Webmasters: the Crime Scene and the T.W.I.N.K.I.E.S. Project. The stories were called "home page profiles" and they were in-depth looks at everyday Joes who were creating extraordinary content for the Web. For instance, the Crime site was created by a theater director as an experiment in interactive entertainment. He did such a good job that people were fooled into believing it was an actual murder investigation. And the Twinkies site? That was the classic story of college students with too much time on their hands—in this case, two Rice University students procrastinating during finals.

The point is that in the past year, those kinds of stories and those kinds of sites have virtually disappeared from the Web. We want to find them, but original sites of that caliber just don't show up very often anymore. We hardly ever stumble upon an original, non-commercial Web site that's worth dedicating a feature to these days. Oh, there are still thousands of interesting sites, but none grab us the way these and many others did early on. Again, it's lawyers and money. In fact, lawyers and money even affected those first two sites.

Tom Arriola, the Crime Scene creator, was discovered and hired to create the commercial cybersoap, Ferndale. With a sizable budget and plenty of bells and whistles, the site has none of the charm of Arriola's former project.

In one of the more ridiculous stories of the past year, the Twinkies guys had to take down their site at one point because some guy who held the trademark to Winkies thought it infringed on his trademark. The university, sensing trouble, made the two students contact Hostess and have the site approved before allowing it to go back online. They were lucky; lawyers at Hostess had a sense of humor and the company said they had no problem with the page.

In many ways this magazine has improved as we've been forced to deal with weighty issues such as copyrights, commercialism and censorship that have affected the Net. Still, all that seriousness (witness our cover plugs from this summer: "Dead Man Talking," "Death Net," "See/Speak No Evil" and "Architects of Destruction") takes its toll. While we'll continue to provide in-depth coverage of the important issues, we're also going to try to have more fun in coming months and bring back the feeling.

Now everybody sing together: "Feelings, nothing more than feelings..."

Write us a letter...
e-mail: mailguy@mcs.com
snail: Tiny, the Mailguy
Internet Underground
1920 Highland Ave. #222
Lombard, IL 60148
fax: 708.916.7227
brick: Second floor window around the middle of the north side of the building.

Note: Tiny's got nothing better to do than correct all your misspellings and grammar. He may also edit your letter as he sees fit. Under no circumstances is he going to ask your permission to run your letter. You see, he lives by an old philosophy where unless someone specifically states that a letter is not for publication, that letter is for publication. It's simple, it's honest and it still makes sense today.

Backing Bernie

Regarding the article "The Secret Service vs. Bernie S." (by Rob Bernstein, *IU* #10), I would like to say that what happened to him is a great injustice. My reasons being:

1. Bell, the FBI and Radio Shack have known about these dialers for over seven years. Oh sure, Radio Shack discontinued the model that everybody was talking about in the hacker world. But what did they do? They changed the model number and case style and to this day you can still purchase these dialers and modify them.
2. Bell has the capability of converting the phones (which they have done to some. But only a select few) so that red box tones will not work on them. They've had all these years to do this, but haven't done anything. It must not be much of a threat to them or their pocketbook.
3. The 6.5MHz crystal is widely available from any major electronics part supplier for as little as 50 cents a crystal. I think the government should be looking at Radio Shack and the telco industry to take care of the problem rather than wasting more tax dollars. They have had plenty of time to do this. If they are going to be so ignorant then let the hackers reign.

BEleeson@aol.com

Tiny says: There's good news for all you readers who were outraged over the Bernie S. article. On Friday, Sept. 13, Bernie was released from prison. For full details visit our Web site at http://www.underground-online.com.

Typical overkill (them not us)

Greetings! Just found your mag on the stands and really enjoyed it...especially the "whole story in one place" layout, and in particular, the story about Bernie S. ("The Secret Service vs. Bernie S., *IU* #10) Typical overkill reaction... surprised they didn't blow the building with another tank assault. I would appreciate the address to *2600*. (Dare I ask with Big Bro watching?)

Thanks in advance,

skars@juno.com

Tiny says: Okay Skars, got a pencil and paper? The address to 2600 is ach, tee, tee, pee, colon, backslash, backslash, dubel yoo, dubel yoo, dubel yoo, dot, two, six, zero, zero, dot, cee, oh, em. Got it?

A Few Good Ideas

I just wanted to say that I enjoy reading your magazine. There doesn't seem to be a lot of rigid structure to the mag, you seem to just go with the flow. I like that, as well as the site reviews.

I also liked the articles "Law and Disorder" (By Dr. Ogden Forbes, *IU* #9), although I will admit I had to break out the dictionary on more than one occasion reading it and "Speak of the Devil" (by Steven Edwards, *IU* #9).

I have been reading *IU* for about six months and have loved every issue; keep up the good work. Very quickly, I want to start my own Web page, but all the good subjects and themes have been taken. Any ideas anyone?

Rob Wilson
wilson.703@osu.edu

Tiny says: Ovi and I were brainstorming in the mailroom and we came up with a number of good ideas. First we thought it would be awesome if some-

one would catalog all the sites on the Web at one site. Then users could go to that site and search for Web pages about subjects of interest to them. Another idea we had for a neat site was to make a page that every day picked another site as the best site for that day. You could use whatever criteria but I think picking a cool site every day would be really neat. Lastly, Ovi thinks it would be funny to do a Mayonnaise Council home page with a hot link to Tuna. Hope these ideas help.

Canadians Who Don't Take None of That

I must first start by saying that this magazine is undoubtedly the best Internet mag there is. Not only is it informative and interesting, it is also the funniest magazine to deal with serious issues. My favorite articles have been on TEMPEST ("The Rise of the Tempest" By Sarah Ellerman, *IU* #7), crashing plug-ins ("Crash Test Dummies" by Simson Garfinkel, *IU* #8) and "The Secret Service vs. Bernie S." (by Rob Bernstein, *IU* #10). After reading the latter article, I was glad that I live in Canada and don't have to put up with that type of crap. My only complaints are that sometimes the layout of the articles makes it confusing to read and that every time I try to go to a Weird on the Web site I get a 404 unknown message.

Other than that, keep up the good work and continue to rub it into Mr. Deady's face.

Vandermeulen
vandermeulen@inetnorth.ab.ca

Hi ho...

Just a quick note to point out a couple of errors y'all made in *IU* #10. On page 77 you have a site review for the Sandbox. There are two rather sizable mistakes in that review:

1. The .ca extension is for Canada, not California. The Sandbox (Acadia Faculty Development Centre) is a part of the Acadia Advantage program at Acadia University, Wolfville, Nova Scotia, Canada. It'd be nice if we were located in California, but...alas...we're not. :)

2. The Webmaster for that site isn't gmacdoug@ace.acadiau.ca it's me, Debra Richardson (drichard@dragon.acadiau.ca). Glenn (gmacdoug) is my boss, but the site is almost entirely my work. I hate to be picky, but...hey, it's my first site review :) I'm rather proud that I got 4 stars. Thanks :)

OK, that's it. I've got to get back to work. I love your magazine, etc. etc., blah blah ;) Keep up the good work, etc. Have fun.

.deb
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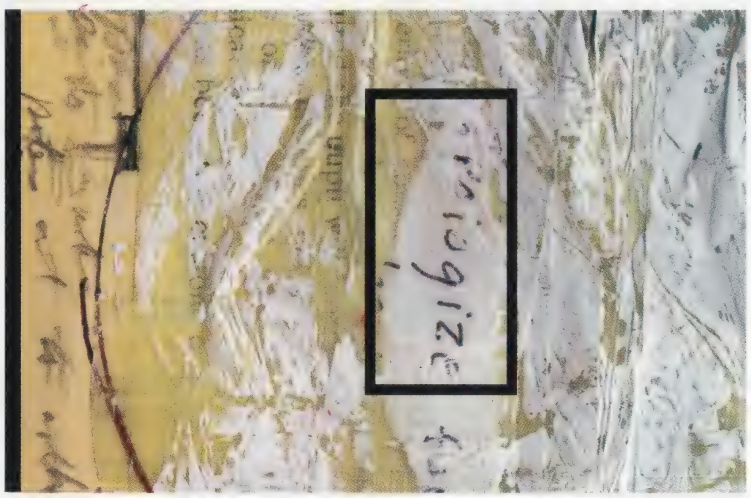
drichard@dragon.acadiau.ca
002134r@axe.acadiau.ca
debrar@webster.acadiau.ca
002134r@dragon.acadiau.ca

Tiny says: You sure have a lot of different e-mail addresses.

The Rest of the Story

David Sims' article on the E-Data litigation ("Carrot or Stick?" *IU* #10) covered a story with two sides—the patent owner's side and the defendants' side,



and gave the URL for the patent owner. Regrettably, the article somehow managed to get through 17 column inches without mentioning the URL for the defendants' side, which is **http://www.patents.com/ige.sht**, thus depriving readers (some of whom, probably, are recipients of the "amnesty packages" described in the story) of this information. I hope you will add this URL to your linker page at **http://www.underground-online.com/current/elpap10.htm**, and print this letter in your next issue.

Sincerely,
Carl Oppedahl
carl@oppedahl.com

Tiny says: OK.

Ethermorph

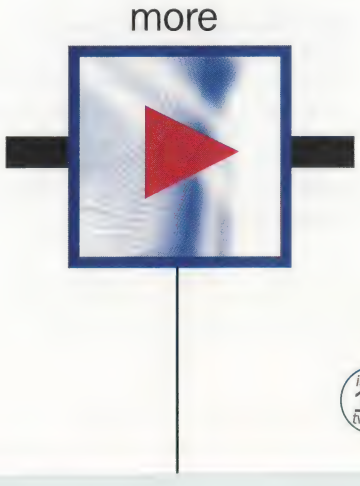
I've been buying your magazine since #5, and think it's the best. I have finally decided to write you because I am having a problem that doesn't want to go away. I am suffering from a Web problem that until issue #7 I could only describe as a screen full of crap. The problem is **ETHERMORPH** ("Net Nomenclature" *IU* #7): The geNETic mutation that occurs when the code of two Web sites merge as one. I have asked everyone I could think of about the problem but it's still not gone. My service provider thought I was insane when I tried explaining the symptoms, and the only advice they offered me was to try deleting my cache files. Well, needless to say, all the responses I got were equally useless. I set up Netscape with every possible combination of options but I still suffer from this insanely frustrating problem. The only reason I decided to write you guys about the problem is because you gave my headache a name, so I figured you might know what's going on. I hope you can help me because I'm getting sick of reloading a page two or three times before seeing the intended result. I have gone through this problem from Netscape 2.0 to 3.bX, and I have never been able to download a .zip file or .mov without it being totally screwed up and unusable. The only files I can get are from ftp sites and Usenet, which keeps me from enjoying the wonderful new streaming technologies that everyone is talking about.

Pat Tapia
www.myna.com/~pat/
Pat@myna.com

Tiny says: Sucks to be you, huh? But seriously, Pat, we wish we knew the answer to this annoyance. Our attempts to solve it were similarly unsuccessful. We promise to publish any answer we find.

The Price is Not So Right

Your mag is priced higher back here in Borneo (Rm. 26.90) on the newsstand. Any means to get it cheaper, something like the U.S $4.99 price as printed on



front page.
Cool!! I like this Underground InterNet.
Ibrahim B Salleh
ibsa31@pc.jaring.my

Tiny says: I did a little digging and as of our press date, according to currency rates of U.S. $1=2.490 Malaysian Ringgits (Rm) you are paying the equivalent of U.S. $10.50 for our magazine (but don't feel so bad because in Mexico, that's a whopping 79 Pesos. Sounds like a lot of money, huh?). Anyway, we can't do anything about that from this end, so all I can think of is boosting the Bornean economy through tourism. Visitors interested in a vacation in Borneo may want to check out Virtual Borneo at http://www.jaring.my/borneo/. Among the interesting facts gleaned: Tourists with a taste for the exotic are welcome to try snake meat, stewed fruit bat or even delicious sago worms.

yet more email

Can't We All Just Get Along?

When reading the article "Master of our Domains" (by Simson Garfinkel, *IU*, #10), I couldn't help but cringe at all the whining about domain names. Recently, while looking to download Quake from Id Software, I wrongly guessed the URL to be www.id.com. What I got was Intrinsic Development who were nice enough to include a link to the probably more sought-after www.idsoftware.com. Now was that so bad?
Tim McIntosh
rmcintosh@worldnet.att.net
www.geocities.com/colosseum/6402/

UO is A-OK

What a relief that your Web site is current and actually features the newest paper edition. (*Name of another Internet publication*) still has their issue from a month and a half ago proudly displayed; the content is the same stale crap it was. I think it would be safe to assume that 90 percent of the readers of an Internet magazine are online in some form, and since your Web sites are an extension of your paper mags, it's a rather poor showing to have the Web site in a disgracefully un-updated state. So keep up the good work, and don't ever leave 90 percent of your lackeys in the cold :)
Ron Mizrachi a.k.a. "saus"
saus@odyssee.net
Editor-In-Chief at
The Definitive Guide To Relationships
http://www.odyssee.net/~jlevy

Ever?

The review of the Jeff Goldblum page (WebGuide) in your September 1996 issue with the reference "The Webmaster on this site was so excited that he could, he didn't stop to think if he should" was the BEST review I've ever read of a Web site (and I run a Web site, so I've read a lot of them). That created instant credibility with me that the reviewer knew what she was talking about. It made me laugh out loud.

Your magazine is always a pleasure to read. I love the "Weird on the Web" and "Top Ten" sections. I'd like the WebGuide to grow larger (didn't it used to be bigger???), and your articles are always interesting to read, often covering topics not discussed, much less mentioned, in other Internet magazines (some of which, like *The Net*, are good on their own merits).

Keep up the great work...
Kevin C.
kevinkevdo@aol.com.

The Deady Watch

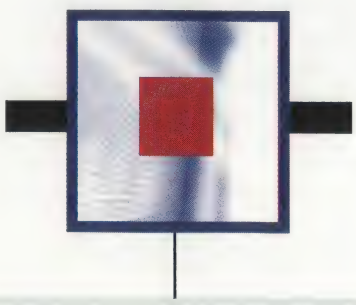
"I give the magazine six months" —G.A. Deady, letter to *IU*, Jan. 16, 1996.

Mr. Deady, we regret to inform you that this is the 12th issue of *IU*. Not only have we outlived your portent, we've shattered it. Thank you for continually refueling our fire.

Readers: You won't want to miss next month's issue in which we'll finally give Mr. Deady a chance to re-evaluate the magazine and ruminate on all things topical in cyberspace. Look for our exclusive "On the Net with: G.A. Deady" in the gala anniversary December issue of *IU*.

To our readers: The editors of IU *regret to inform you that due to unforeseen circumstances we will no longer be able to present the "Victor the SnakeMannn Photo of the Month." For those of you who can't live without a monthly fix of the SnakeMannn's smiling visage, we suggest visiting the SnakeMannn's site (http://home.navisoft.com/snakemannn/index.htm) yourself for a full array of SnakeMannn shots, not to mention a killer midi version of "Whole Lotta Love."*

end.



UNDERGROUND

Visit Underground Online, the webbed companion to *Internet Underground*.

Stories you won't see in the print version.

Music from independent bands.

All the URLs from this issue.

Links to hundreds of reviewed Web sites.

http://www.underground-online.com

NEW top ten

one.

The '80s Server

http://www.80s.com

It's totally awesome! The new-and-improved '80s server offers a ton of fresh retro stuff for Web goers. Try your hand at the '80s version of ***Name That Tune***, join an online competition to identify classic '80s movie quotes (help us with the one for Sept. 11: "I love you Pete, but I'm not enjoying it") or chill out with a RealAudio jukebox of rad '80s tunes. Finally, Nina Blackwood, phat laces and Yahoo Serious shall live on into future generations.

two.

Mysterious Places

http://www.mysteriousplaces.com/index.html

From Easter Island to Mayan Ruins and Anasazi cliff dwellings, Mysterious Places takes a fascinating look at a series of national and international archaeological treasures. The site's excellent writing reads like an Edward Abbey book and is illustrated with captivating photos. Author and photographer Cliff Wassman is well-versed in both the history and geography of the regions that he covers, and skillfully conveys both the heart-stopping claustrophobia of descending to the bottom of a slot canyon and the important lesson that the decline of Easter Island can teach modern society. A grand adventure.

three.

Angelnet

http://angelnet.com/

All this and brains too. Angelnet is a beautiful Web site that leads you to "The never-ending waters of love, beauty and harmony," and makes you drink of it. Movies, mantras, music and more, designed and displayed to soothe you and put you in touch with the "dolphyn" world—portrayed as one of peace and overwhelming spiritual bliss—will leave you feeling as warm as a Hot Toddy and as calm as a sea cucumber. Lots of art, New Age sound bytes, meditation links make this site a wonderful place to hang out, feel good and leave the "real" world behind. And besides, Angelnet is not just another pretty page. Aside from making you feel good, these celestial Webmasters promote environmental responsibility, including tips on how you can help keep Mother Earth beautiful and who to complain to on Capitol Hill should she be abused.

four.

Wackypacks.com & John Mann's Wacky Packages

http://www.wackypacks.com/ & http://www2.pair.com/wacky/

Too wacky. This pick may be an act of sentimentality more than anything else, but some of us here at ***IU*** are pleased as punch that collections of Topps Wacky Packages stickers (collectible stickers lampooning products in the same style as the detestable Garbage Pail Kids cards) have been posted to the Web. Two sites will share this spot—Wackypacks.com is, graphically better organized, while John Mann's Wacky Packages Web Page is more informative, with trade show dates (huh?) and related links.

five.

Golfcourse.com

http://www.golfcourse.com/

If whiskey and cigars are cool again, then why not golf? Before throwin' your clubs in the car and heading out to the links, you owe it to yourself to check out the vast searchable database of the nation's courses. For instance: looking for a nine-hole course for less than $50 within 25 miles of Duluth, Minn.? Golfcourse.com came up with two different courses that fit that description. On top of the locator, articles on featured golf courses, course architecture and environmental issues make for a site that is anything but par for the course.

six.

Cool Tool of the Day

http://www.cooltool.com

Imagine a crew of "total software junkies" who need an intravenous feed of new wares to play with every day. Then imagine these die-hard gearheads editorializing on these fun toys every day. Your idea of heaven? Well, Cool Tool of the Day delivers all this and more. You'll find great Mac and PC applications, both on the Net and off, and all the information you need to run them. The site is polished and personable, with whimsical graphics and a joking, intelligent tone.

seven.

National Security Archive

http://www.seas.gwu.edu/nsarchive/

The truth is out there...in fact it's on the seventh floor of a library on the campus of George Washington University and now online. At the library and at the URL above you'll find the National Security Archive, a storehouse of once-classified information dealing with issues varying from the Cuban Missile Crisis to the historic meeting between Elvis and Nixon (see photo). Conspiracy theorists take note: If you want to dig up your own dirt, there are complete instructions on using the Freedom of Information Act as well.

eight.

Optical Illusions

http://lainet3.lainet.com/~ausbourn/index.htm

You come upon a great-looking site, but when you hit the links you realize there's no content there. While this may too qualify as an optical illusion, you won't find a depository of lame URLs here. These are the optical illusions that astounded you as a kid ("There's no way those two lines are the same length!"). And guess what, in this day of Shockwave and Java eye candy, these vexing visions are all still pretty cool.

nine.

nrv8

http://www.nrv8.com

"Enervate" means "to deprive of vitality." This zine, called ***nrv8***, does just the opposite. By definition, it's busy "disputing definitions, contradicting arbitration, refuting norms, questioning authority, mocking ideals and contesting trends." In what way is TV detrimental to women? Is it really true that a good education will lead to a good job? And why do we worship celebrities anyway? ***nrv8***'s writers tackle the topics that will really make you sweat, shout and stay up all night composing a rebuttal.

ten.

Oyez Oyez Oyez

http://oyez.at.nwu.edu/oyez.html

The pounding of a gavel and the magic words "Oyez, Oyez, Oyez" mark the beginning of all Supreme Court proceedings and also welcome you to this supreme site. Northwestern University political science professor Jerry Goldman has created a guide that clearly explains key legal issues and details surrounding important Supreme Court cases. At the heart of Oyez are RealAudio recordings of oral arguments and opinions. The site's extensive archives provide a unique glimpse at the workings of the highest court and allow you to listen in as attorneys present such landmark cases as ***Roe v. Wade*** and ***United States v. Nixon*** before the justices. This continuously updated site will soon feature hundreds of cases and hundreds of hours of audio. It would be a crime not to visit.

I Still Haven't Found What I'm Looking For....

Oh-so-tricky Web businesses have started to scrape up undeserved traffic by snagging tremendously obvious domain names. Fill in the formula "www._____.com" with any simple word that smacks of naughtiness and exploitation, and start to reel the suckers in. People must be falling for it hook, line and sinker, because someone's paying for all those pricey InterNIC fees! Once you arrive at the (decidedly bland) sites, you'll find a completely prudish storefront that makes no mention of the dirty word that provoked you to go there in the first place. Depravity is no longer a vice. It's a marketing tool.

www.oj.com
No celebrities, no football, just phone sex ads!

www.fat.com
Ooo, a systems network and Internet integrator!

www.sh*t.com
Vanity e-mail addresses!

www.underwear.com
How novel—Web marketing!

www.semen.com
Page features one word: "Hello!"

www.hate.com
Jokes about Cthulu!

www.awipe.com/**
Rents out thousands of popular domain names!

www.penis.com
Seized for absolutely no purpose by www.greenhorse.net!

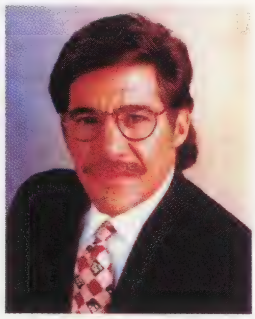
Also check out: spider, chump, flowers and d**khead.

Good Lord No!

Siegfried and Roy
http://www.siegfriedandroy.com/

Christopher Cross
http://www.christophercross.com

Danny Pintauro FAQ
http://www.best.com/~astra/faq/djp/dp-faq.html



Geraldo Rivera
http://www.geraldo.com

Bargain Bin

Beverage Loop Shorts
http://www.netins.net/showcase/zoodas1/

You're at a barbecue trying to successfully negotiate a bratwurst in one hand and a Pabst in the other, and wishing you had a third hand. Well, wish no more. It may not be a third hand, but it's the next best thing: beverage loop shorts from Zoodas. "Designed with your can in mind," these fashionable shorts are the perfect apparel for those of you not adept at juggling food and beverages at the same time. Hell, if you could get yourself a long enough straw, your beer would never have to leave your side. Only $19.95 a pair, the shorts come pre-emblazoned with beer logos—but don't think that just because you're wearing Bud shorts you can't enjoy an ice-cold Stroh's. One caveat: Avoid embarrassment by always making sure you remove the can from your side when passing through airport metal detectors.

Netspeak

"There are those moments, like when I'm shopping for Preparation H, that the lack of anonymity starts to wear on me. There's no way to describe what it's like to be a public personality...I can't deny that there are times during the day when I would just like to just be, as opposed to being someone famous."
—Kevin Bacon, describing the complexities of being a world-famous actor on AOL.

"When we were doing the show, I wasn't really aware of that. It's like something that caught on, but I don't think we were aware of that character doing that back then, and people have kind of picked it out and made something out of it, and of course the movie picked up on that and had fun with it, but I wasn't aware that she was the whiner. I thought we all were."
—Maureen McCormick, the original Marcia Brady, responding to the question "Did you ever just want to smack Jan for her whining?" on AOL.

"I wear a size 12D shoe. My father used to tell me that I would have been a big man if I hadn't had so much turned down, meaning my feet."
—Perennial game-show host Wink Martindale commenting somewhat cryptically on the size of his feet on AOL.

"Gee...you're only the 437th person this week to say that to me."
—Weird Al Yankovic getting somewhat testy about being asked to do a parody of the Macarena on AOL.

Numbers on the Net

Our CD player broke and the only radio station that would come in was a classic rocker, so we thought we'd examine their playlist through Hotbot.

Lynyrd 3,625	Skynyrd 3,925
Pink 253,622	Floyd 126,606
Led 853,953	Zeppelin 28,469
Van 1,285,465	Halen 29,052
Grateful 155,400	Dead 761,938
Aldo 27,305	Nova 305,397

Kodak Net Moments

A pair of Kodak Film commercials that debuted this fall deserve special recognition for the way they have integrated the Net with their 30-second parables. The first, "Pie Plate," revolves around a young lad who, in the course of developing a picture of his dad, notices a speck in the background. The speck, it turns out, is a UFO, or in the opinion of a *mysterious man* (straight out of *The X-Files*) who happens to show up at the photo store, "a pie plate flying at 30,000 feet." After giving a photo CD copy of the UFO to the *mysterious man*, the young lad rushes home with the picture to "put it on the Net" and send it to all his friends via e-mail. Milliseconds later (this is a commercial after all), the *mysterious man* calls the young lad to tell him ominously, "I wish you hadn't done that."

The second commercial, "Gremlin," is about another young man who drives, yes, a yellow Gremlin. The man, after a visit to the photo shop to blow up a picture of himself with his Gremlin, returns home to log on to the "Gremlin Lovers' Party Room." Once online, he meets a beautiful blonde "Grem-loving Finn named Miska." Alas, just then disaster strikes, when his dad crashes into his beloved Gremster. Luckily, he has a high-tech insurance agent who, after taking digital photos, surfs the Net for dealers with replacement parts.

The commercials, produced by Ogilvy & Mather, get our kudos for their deft humor and departure from the traditional syrupy Kodak moment theme. Moreover, it seems the commercials were made by people who actually understand the Net and its quirky subcultures.

AVERAGE COST QUOTED BY WEB DESIGNERS TO DEVELOP A "LARGE SITE": $596,073

THE ROCK-BOTTOM COST QUOTED BY ONE WEB SITE DESIGNER FOR DEVELOPING THE SAME SITE: $15,000

THE HIGHEST COST QUOTED BY WEB DESIGNERS FOR DEVELOPING THE SAME WEB SITE: $2,800,000

ACCORDING TO A NET-MARKETING SURVEY, THE PERCENTAGE THAT BIDS CAN VARY FOR THE SAME WEB SITE DESIGN: OVER 1000%

[State of Confusion]

Local Censorship Bills Threaten to Transform the Net into a Sticky Web

IN 1994, ROBERT AND CARLEEN THOMAS, operators of the "Amateur Action" BBS, were prosecuted for the distribution of "obscene" material. It was a chilling case for the Internet community, as the Thomases were tried and found guilty of violating conservative Tennessee "obscenity" laws—even though they ran their BBS in California. The Thomas case essentially asserted that a Net user could be penalized on both ends of communication, either by the state in which one lives or by the state with which one chooses to communicate.

Years later, the Thomas case still haunts the Internet community. While the Communications Decency Act is on hold till further review by the Supreme Court, states are commencing with their own CDA-like bills. This is a serious problem. "People in one state can be held responsible to standards or laws that are different than their state. It's hard for Internet users to know where the site they're accessing is physically located, but even if they did, how could they know what the state laws are that are involved with that Web site?" asks Electronic Frontier Foundation attorney Shari Steele. "And it's certainly hard for Web designers and Web page owners to know where the people are coming from that are visiting their Web site and what the laws are in their individual jurisdictions."

Most of these state censorship bills deal with issues of online harassment, child pornography, bombmaking files online and the distribution of "indecent" materials over the Internet. While the drafters of a few of these bills are confronting issues that are at least arguably reasonable, the Georgia legislature has demonstrated the impending dangers of sloppy online regulation. Down the slippery slope they've fallen: the Georgia legislature failed to pass an outrageous bill outlawing the posting of pictures of marijuana online, but did manage to pass House Bill 1630, which forces Georgia residents to obtain authorization from an organization or company before linking to them or using their trademarked name, logo or copyrighted symbol. Furthermore, the Bill criminalizes the use of pseudonyms online, so CompuServe users with an e-mail address that's an account number instead of their real name can be prosecuted in court. As we went to press, volunteer attorney J. Scott McClain of the Atlanta firm Bondurant, Mixson and Elmore, (who is representing 14 plaintiffs including the EFF Georgia and the American Civil Liberties Union), filed suit seeking a preliminary injunction against the Georgia statute. "It's absolutely dangerous. ...It cuts to the core of free speech and free press ideas," says McClain, who believes the lawsuit is the first such challenge to state cybercensorship laws. Visit **http://www.efga.org** for more information regarding the lawsuit.

WASHINGTON GRIMACES AS STATE CENSORSHIP LAWS THREATEN USERS' CONSTITUTIONAL RIGHTS ONLINE. IMAGE DEVELOPED WITH ELASTIC REALITY BY AVID TECHNOLOGY, WWW.AVID.COM.

"It's really dangerous. We're trying to encourage worldwide communication, but we have these little laws that crop up and penalize people in different areas depending on what you do," says Richard Burroughs who posts a complete list of state censorship bills that have passed into law or are awaiting vote (**http://www.teleport.com/~richieb/ state/**). "I think what hopefully will happen is the Supreme Court in the CDA case will set down some criteria for what can happen and what kind of regulations can exist. I'm hoping they'll give some kind of broad protection that will pre-empt a lot of legislation that is out there. That's my hope."

Yes, let's hope. But even if the Supreme Court renders the CDA unconstitutional, explains Steele, each individual state law would have to be challenged in order for them to be struck down. "Basically, the law remains on the books, even if it is considered unconstitutional, until it has been challenged."

For more information, also visit the American Civil Liberties Union's Web site devoted to fighting state censorship at **http://www.aclu.org/issues/cyber/stbills.html**.

—Rob Bernstein

[Your One-Stop Computer Shop]

NetBuyer Takes the Hassle out of Buying Online

WHEN YOU THINK OF "ONE-STOP shopping," you probably think of your local Super K-mart, where steel wool, roses, and Doritos all reside under the same florescent lights. But shopping for computer components? Up until now, that was a grueling coordination of researching specs, driving around town and comparison pricing.

That ordeal has become a thing of the past with the unveiling of NetBuyer, a powerful new site designed to coordinate every kind of information on computer shopping online. The site, at **http://www.netbuyer.com**, builds on the success of its elder print sibling, *Computer Shopper*. *Shopper*'s Al Di Guido says, "The same formula that we've got with *Shopper* in print is being extended to the Net. If you think about what goes on on the Net today in terms of a shopping experience, the idea of 'surfing' the net—I don't know who called it that—it's more like *slogging* through the Net." To solve this annoyance, the wholly advertising-supported NetBuyer has brought hundreds of vendors under one roof, with close to 40,000 products available for perusal and purchase.

Becoming informed is simple and efficient when using the service. Buying Advisor, is an area which is designed to take the less sophisticated user by the hand. Di Guido says, "If you don't know the exact system that you want to buy, let's say, it'll ask you a series of questions. Based on your answers, it will suggest a configuration. Not a make, model, or brand, but an appropriate configuration." What's more, you can immediately access performance reviews and technical tips from the entire Ziff-Davis family of computer specialists and editors. Di Guido describes Buying Advisor as "the best sales clerk you could ever have on the Net. When you go to a store, you're asking questions of a sales clerk on products they don't know that much about. But on NetBuyer, we've got an institutional kind of sales clerk who's got information on all the Ziff-Davis editorial." Sophisticated users will be pleased to learn that even the most obscure items are in-stock and ready to ship.

The site will allow the user to make individually-tailored comparison shopping charts as well as place orders through the Web site. Di Guido concludes that NetBuyer is "truly fulfilling the Internet's promise of making things a lot easier to access." —*Sarah Ellerman*

THE AVERAGE MONTHLY COST OF PRODUCING THE EPISODIC WEB SHOW, *THE EAST VILLAGE*:

$48,000

THE AVERAGE MONTHLY COST OF PRODUCING THE EPISODIC SCI-FI SHOW, *MADELEINE'S MIND*:

$87,500

THE MEDIAN NUMBER OF BROWSER BOOKMARKS MAINTAINED BY A NET USER:

40

SOURCES: BUSINESS MARKETING, I/PRO, NEWSPAGE, REUTERS

[Bad Laws]

Site Alerts Users to First Amendment Rights Violations

What's Oregon's Measure 31? Senate Bill 1583? HR 1946/S 984? Answer: U.S. laws that violate your First Amendment rights. At least, that, according to the Free Expression Clearinghouse (FRECH), a network of more than 30 human rights groups combating censorship in the United States. A new Web site at **http://www.freeexpression.org** has been established by FRECH to alert Internet users of some of the most absurd transgressions of the Constitution, including pending legislation in California that would introduce criminal penalties for libel (up to a year in prison), and an Oregon law that would permit states, cities and townships to separately establish censorship laws (theoretically making the possession of *The Joy of Sex* in one town legal, while in the next, a punishable crime).

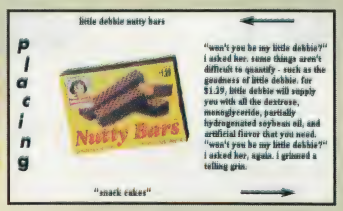
The site is still being roughed out, but it offers valuable alerts and how-to information for interested users willing to take action. Lisa Cooley, editor of FRECH online says that the site won't be turning away relevant cases, so start e-mailing in the injustices.

As for a Senate Bill worth rooting for, check out Representative Rick White's House Resolution 487 at **http://www.house.gov/white/press/hres478.html**. The bill would make committee information, such as prints of bills introduced or distributed for markup, available for public perusal before they're voted on in committee. The idea behind this bill, says White's press secretary Connie Correll, is to improve public participation with regard to new laws. By placing such a database online, users could actually read, examine and complain about restrictive bills, particularly proposed Internet laws, before they make it through even the earliest stages of legislation.

[Net Briefs]

Xanax, HoHos and Much More

Carl Steadman, the co-founder of Suck, has launched Placing (**http://www.placing.com**)—"a revolving series of epiphanies" about consumer products. From A



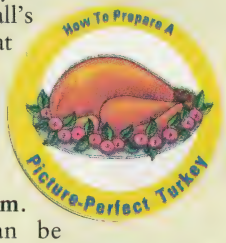
to Ziploc, each letter of the alphabet receives an oft-amusing, disturbing segment about a brand-name consumable. "Placing is about the relationship between a product and an individual," Steadman writes. We particularly enjoyed reading about the squirrel stuck in a Yoplait container. *—Dave Cassel*

Texan YAHOOS?

The folks over at Miss King's Kitchens Inc. are baked over what they consider to be an infringement on one of their product's trademarks, the Original Texas YA-HOO! Cake. We've never even seen an Original Texas YA-HOO here in the office, but we imagine that consumers of the cake would have to be awfully addled-brained to confuse it with an Internet directory service, especially since the logo of the cake has a cowboy and lasso printed between the "A" and "H" of the trademark. Whatever.

The Turkey Server

We're lucky here on staff because our mailroom assistant, Ovi, cooks up one mean Thanksgiving bird. But for those of you in need, check out Butterball's Turkey Talk-Line Online at



http://www.butterball.com. An online staff that can be reached by e-mail or phone (1-800-323-4848), will be available this month to provide cooking, carving, gravy and stuffing tips.

Bad Fridges

A recent Reuters story reported a wonderfully ridiculous piece on the "tyranny of machines." One of the story's sources, Roland Burns of the University of Plymouth in southwest England, predicted an apocalyptic future where kitchens are inhabited by "smart fridges," specially designed refrigerators that are actually programmed to withhold unhealthy snacks and high-calorie treats from its owners. "If it comes to that, Ripley, I'll do us both."

[Bye-Bye anon.penet.fi]

Users Desiring Anonymity Will Have to Find An Alternate Remailer

Aug. 30 was a sad day; the anonymous remailer anon.penet.fi, was shut down by its operator. The free service, run by Finn Johan Helsingius, permitted users to communicate with one another without revealing their true identity. E-mail sent through anon.penet.fi had its identifying user name stripped and replaced with an anonymous codename. Only Helsingius, who had been operating the remailer for three and a half years, ever had access to anyone's true identity...That is, until the Finnish courts ruled, in a case involving the plaintiff Church of Scientology, that the anon.penet.fi database could be viewed to determine the true identity of a penet.fi user. (At press time, Helsingius announced that he had been granted a temporary injunction blocking enforcement of the decision of the District Court of Helsinki in the Scientology case).

In response to the Finnish court decision, Helsingius pulled the plug on the service and explained to *IU*, "Traditionally, Finnish law has upheld a very strong protection for privacy, but this has been done using special laws covering things like the postal system and the telephone networks. A recent deregulation change removed things like the Internet from the scope of the telecommunications laws—unfortunately removing the privacy protection offered by those laws." Currently, anon.penet.fi only supports The Samaritans in the U.K. and the Mannerheim Child's Protection Organization in Finland, says Helsingius. Other users of the remailer will now have to seek out alternate means to communicate with others anonymously *(see sidebar)*.

Helsingius' announcement to shut down anon.penet.fi came on the heels of a story by the *London Observer* that insinuated that 75 to 90 percent of all child pornography on the Internet was channeled through anon.penet.fi. Despite the fact that the Observer's chief source of information about the channeling of pornography through anon.penet.fi was dubious (a California police sergeant Toby Tyler, who insists that his words were taken out of context and sensationalized), it's unlikely that much child pornography really moved through anon.penet.fi. Why? Explains Helsingius, "First, there has been a 16K size limit imposed on messages—and a typical image file is hundreds of kilobytes. Second, all alt.binaries groups (the groups that pictures are posted to) are totally blocked. And third, all messages contain a request to report inappropriate use to a special reporting address—and people know that the Finnish police can get access to the information using a police order."

While the shutdown of Helsingius' remailer came as a surprise to many, it's not out of left field according to Andre Bacard, author of *The Computer Privacy Handbook* and maintainer of the Anonymous Remailer FAQ. "Johan deserves a lot of credit for all the time he's spent trying to defend thousands of people's privacy. This incident is a good example of the saying, 'no good deed goes unpunished.'"

The most popular of all remailers, anon.penet.fi boasted over 500,000 users and privatized over 7,500 e-mail and posts each day. Helsingius' remailer was unique in that it was a "pseudo-anonymous remailer," meaning that the operator of the service (Helsingius) actually knew the true identity of the service's users.

Anon.penet.fi provided only a moderate level of security but was very simpler to use and thus, was more accessible to the average Netgoer than other remailers. It was this popularity, says Bacard, that finally caused anon.penet.fi's demise. "The only thing saving higher security remailers is that it's harder to learn how to use them...I've always felt that the more the Internet becomes used, the more repressive it will become."

Should users really fear the shutdown of other remailers? Probably not. Helsingius is hopeful that "Western societies will protect and honor the need for privacy." Sameer Parekh, operator of Community ConneXion, an Internet Service Provider that provides anonymity to its clients, adds that other remailers aren't in danger because they actually comply with court orders—no laws are ever broken. "Helsingius' problem was that he wasn't sure if he could protect his users' identity in the wake of Finnish laws. But the information stored on our server isn't enough for the court or whoever it is that wants this information, to actually find the user's identity."

The shame of it all—a lot of people were using anon.penet.fi for low security needs and weren't concerned one way or another about court orders. The nature of the Net, however, is that where one may not succeed, another may take on the cause. Soon, let's hope, anon.penet.fi, in one form or another, will rise again.

Hide Yourself Away

Now that anon.penet.fi is no longer alive and kicking, users will have to learn to operate alternate remailers and anonymizing softwares. Here's a brief look at what's currently available:

Private Idaho
(http://www.eskimo.com/~joelm/pi.html)
Windows software package allows users to e-mail anonymously through remailers.

Premail
(http://www.cs.berkeley.edu/~raph/premail.html)
For Unix workstations, Premail is a software package that can be used to create alternate identities.

Andre Bacard's Remailer FAQ
http://www.well.com/user/abacard/remail.html)
Bacard's Remailer FAQ is the 101 course on using various anonymizing systems.

alpha.c2.org
(http://www.cs.berkeley.edu/~raph/alpha-help.html)
Like anon.penet.fi, this is a "pseudo-anonymous remailer," run by Sameer Parekh at Community ConneXion. Check out this help file to get started.

Web Interface Remailers
(http://www.arch.columbia.edu/~jim/anon/ or
http://www.replay.com/remailer/anon.html)
Accessible even to Grandma, these two Web Interface remailers provide an extremely simple solution to sending anonymous e-mail. They're not nearly as secure as other remailers, but are better than nothing.

Cypherphunks Remailers
(http://electron.rutgers.edu/~gambino/anon_servers/remailer)
These servers strip your e-mail of its identifying header altogether. These remailers also allow you to encrypt your message (in case it's intercepted), and decrypts it for the recipient. Vince Gambino's remailer page provides reliable addresses for cypherpunk remailers.

Mixmaster Remailers
http://www.obscura.com/~loki/remailer/mixmaster-faq.html)
Considered the cream of the crop in anonymity, mixmaster remailers run on special UNIX software. The FAQ provides info and links to getting started with this option.

Anonymous Accounts
(http://www.c2.org/)
Through Community ConneXion, users can set up an anonymous account and forget about the hassle of remailers altogether.

Aristotle's Privacy Philosophy

Even though Lexis-Nexis removed social security information from a database called P-Trak, an electronic white pages, the Net is still up in arms. Time to settle down though, because you can remove yourself altogether from the P-Trak database by e-mailing a removal request to p-trak@prod.lexis-nexis.com. Be more afraid of Lycos' People Find application (designed by Infospace at **http://www.infospace.com**) that draws a city map of where users live. Privacy freaks should check out Aristotle at **http://www.aristotle.org**, a new free e-mail service for registered voters that removes Webgoers from direct marketing lists and P-Trak-like databases.

WebTime Reading

We at *IU* would rather be drawn and quartered than have to read through another poorly written episodic Web show. If you've reached that point of desperation as well, you might want to check out StoryWeb at **http://storyweb.com**, a site that provides detailed reviews and ratings of such shows. Nice design and fairly reliable opinions is the story here.

Net Platinum?

Could it be the first single to be released over the Internet that goes platinum? That's what Virgin Records is hoping, and hyping—but the fact remains, Bowie's Internet-only release, "Telling Lies," is free—so "platinum" or not, counting downloads as sales is misleading. At press time, the song had been accessed over 100,000 times according to Bowie's publicity folk over at N2K. While it took some time to download the song with an office T1 line, we were pleasantly surprised...the song ain't half bad. If you haven't already, check it out at **http://www.davidbowie.com/lies/feel777.html**.

Net Nomenclature

Forty-nining: After reading through the first six pages of AltaVista search results, the act of jumping to random pages in hopes of striking gold and finding the item you were searching for.

Link 'n' Log: Sites that actually make you log in with a password before allowing you to link to it's protected pages.

.comfusion: The state of confusing a .com domain for a .org or .gov domain in a Web address, causing great delay in finding what should be an otherwise simple URL.

Net scapegoating: The act of blaming the Internet for all of the world's problems. Not to be mistaken for Netscape goating, the act of blaming one's browser for all of the world's problems.

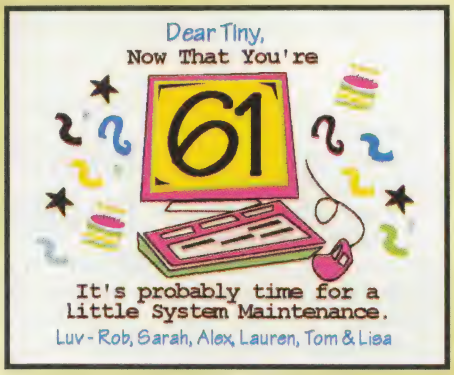
Send your 'Net Nomenclature submissions to iu@mcs.net. If we use it, you'll win the *IU* Random Prize™.

With regard to birthdays, some people love them, some hate them and others are just indifferent about them altogether.

And then there's Tiny, our 61-year-old mail guy, who claims he's none of the above: "I used to love them, but have learned to hate them," he likes to grouch. Semantics.

Anyway, when it comes time to celebrate Tiny's birthday (we've celebrated two thus far), the staff always finds itself in a little dilemma. We've come to learn that whether or not we put ourselves out, our b-day plans for Tiny always manage to make him grumpier (last year's magically relighting candles nearly drove him insane with anger). We either make too much or too little of a fuss. So this year, we've tried to come up with an original alternative to the usual office-kitchen birthday cake and singalong—Cybercalifragilistic's Singing Birthday Greeting Card Web site.

The Web site greeting cards run $14.95 for a standard greeting card with message, graphic and e-mail notification to



[Is It Worth It?]

CYBERCALIFRAGILISTIC GREETINGS

http://www.webcom.com/getagift/Order_A_Birthday_Home_Page.html

the lucky b-day recipient. For an additional $10, users can purchase a "virtual guestbook" where visitors can "sign" their name and leave a message. And for yet another $20, Cybercalifragilistic will also provide an audio-delivered "happy birthday" song, sung by you. Sparing no expense for our buddy Tiny, the staff purchased the whole package ($44.95).

Setting up the birthday greeting was rather simple: All *IU* had to do was choose a "comical" Web site greeting card from 12 or so choices posted at Cybercalifragilistic's home page, and call a 1-800 number to record our very own "happy birthday" to Tiny. The friendly folks at Cybercalifragilistic were able to provide one-day turnaround on posting the Web site, although they promise one-to-three hour turnaround in extreme emergencies. View our card to Tiny at **http://www.cybercal.com/getagift/Tiny.html**, and while you're there, sign a b-day wish in the guestbook and listen to our horrific birthday song. (Be warned: it's mindwarping).

So did Tiny like it? Was it worth it? In his own way, Tiny expressed approval over the gift, although he did grouch about having his age posted online. As for the cost of the greeting card, it was a little pricey (although at press time, Cybercaligfragilistic said the audio cost would probably drop in the coming months). The fact of the matter is, Troy Brophy, our *IU* Webmaster, could have put together a great site at no cost—however, we realize that few people have that option.

Cybercalifragilistic has a novel idea and their next step should be getting the costs down, and adding a more flexible greeting card interface so that users can design their own Web cards. Anyway, happy birthday Tiny!

—Rob Bernstein

[Places to Whine Online]

Web Sites Allow Users to Blow Off A Little Steam.

EVERYONE AND EVERYTHING FROM THE KARAOKE Warehouse to *America's Funniest Home Videos* host Bob Saget to Dunkin' Donuts gets dunked at what bills itself as the "Crankiest site on the Net." Angry.org (**http://www.angry.org**), run by SOMA computer consultant Jonathon Mergy, is just one of a slew of sites devoted to complaining and venting over the Internet. Vexed visitors who frequent the site often post phone numbers, addresses and voodoo curses aimed at companies, ex-boyfriends and organizations among thousands of other targets—angry.org visitors can even use a site search engine to seek out other miffed users who may have posted similar complaints on the site.

Mergy says the Web page began as sort of a joke. This past June, Mergy registered angry.org as a test site for a domain name service he was initiating. In days, however, the site received thousands of hits and the attention of Netscape's cool list. Not before long, angry.org, running on an old Mac 2CI with 8 Megs of RAM and 80 Megs of hard drive, received up and over 150,000 hits a day. Why the immediate popularity? "It's just pure anger, just bitterness and hatred. But it is actually a real release to people and a lot of psychologists have e-mailed me and said, 'I tell my patients to come here and check this out and vent.' I get so much feedback from people who say, 'It was great to be able to type this thing out and then just click the send button.' It's actually like zen where it fires all the bad energy away from you."

Is angry.org starting to sound a lot like Usenet? Yes, it's a bitter and cold place like most newsgroups, but it's different from Usenet, insists Mergy, because "with Usenet, when you try and say something, you'll have like 10,000 people jumping all over you for no reason. With this, it's more like, 'Hey I'm angry, recognize it.'"

Angry.org isn't the only page to blow off a little steam of late. Randy Chambers, a Dallas jeweler, started the "Why I'm Pissed" page after he felt he had been wronged by a local service provider. In an effort to warn other Dallas residents, Chambers began posting angry complaints at his Web site (**http://www. dfw.net/~chambers/pissed.htm**), and included a forum through which others could anonymously post misgivings about this and that.

Not all sites are purely about unleashing verbal abuses over the Net. Many sites have been conceived of to actually offer users a way of receiving restitution for their grievances. At the CyberCop Precinct House (**http://www.ucan.org/**), users can complain about everything from suspicious Web sites to unscrupulous service providers. Cybercop will investigate complaints and draw up blacklist-like information for Net users. "We've gotten tremendous response," says Cybercop Barry Fraser. "We've only been operating since July and since then we've gotten over 25,000 hits."

Whatever your grievance, you'll find a forum for it on the Net. After a simple search engine search, *IU* found tons of valuable complaint sites that whooped it up about everything from lawyers to auto repairs. Our favorite URL however, has to be Complain This! at **http://www.tuns.ca/~boutilmw/complaints.html**. Simple and to the point, it summarizes how many Net users tend to feel about authority these days.

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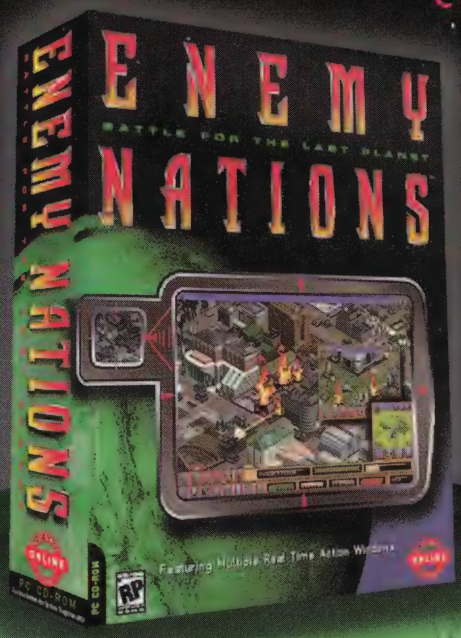

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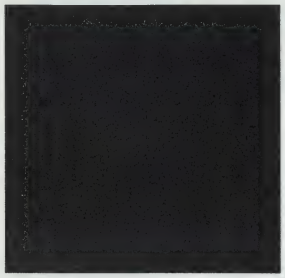
weird on the web

THE BLACK HOLE OF THE WEB



http://www.ravenna.com/blackhole.cgi?1

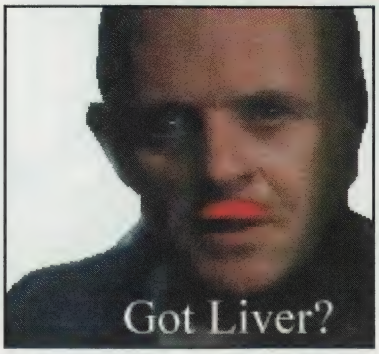
This site is what the Web is all about. We're not going to actually tell you what you'll find here—you must rely on your rugged sense of adventure and insatiable curiosity to see you through. Just enter in the URL—you know the routine—and in seconds (or perhaps minutes, depending on your modem), you'll discover what many scientists and theorists have been talking about for years. Or maybe not. Maybe this is the biggest waste of time to ever grace the Web. Check it out for yourself, and we'll see you upon your return, that is, if you ever come back.

BUD UGLLY WEB PAGE DESIGN

http://www.wwwvoice.com/bud/bud.html

Masquerading as an advertisement for a Web page design firm, the Bud Uglly home page plugs the worst possible Web page features, such as awful Java scripts and obnoxious blinking text. The site is chock-full of typos, seamed backgrounds and hysterically bad marketing mumbo-jumbo written as though it were sincerely targeting companies or organizations coveting a "presence" on the Web. Bud Uglly offers advanced "surch" forms, the "FAK" and custom-made animated "gips" for your perusal. "And remember if it's not bud ugly, then you probly paid to much!"

THE DR. HANNIBAL LECTER FAN CLUB



http://www.cyberstation.net/~mariah/lecter.html

You have to wonder how much free time people have on their hands, especially after stumbling across such online content as the Dr. Hannibal Lecter Fan Club site. The cannibalistic serial killer, created from the inclement mind of author Thomas Harris (*Red Dragon* and *Silence of the Lambs*), is the focus of this padded-cell wallpapered Web site. After browsing through the Lecter biography, an uncountable number of links, quotes, sound bytes, letters from Lecter and more, you'll be left drawn, depressed and in need of some MAO inhibitors yourself. Excellent, although incredibly grim.

OVERHEARD CONVERSATIONS

http://www.nicedog.com/works/overheard.html

There's nothing like getting and giving some good, juicy gossip with friends, family and co-workers. The Conversations Overheard Web page, a section of the larger and quite interesting **nicedog.com** home page, allows visitors to share silly stories and strange remarks that may have been overheard at the office, on the street, in nightclubs or anywhere, with Netizens worldwide. Even if you walk with your eyes to the ground and your ears tucked away, you can enjoy this site by perusing other people's submissions.

BAD TEEN ANGST POETRY

http://www.cyberperk.com/angst/angst.htm

"On you go on your happy way. My dreams reduced to nothingness. In vain. All in vain." Shakespeare it ain't. But in the midst of a nasty breakup, a heart-wrenching crush or a prom night zit, many teens can find solace by filling their spirals with such verse. This is bad teen angst poetry and a Web site has been set up to collect the tortured musings of teenagers. This public forum allows teen authors the opportunity to "ultimately free themselves from said poetry's evil grip." The site also provides poets an opportunity to submit their work anonymously and serves as an excellent lyrical resource for musicians trying to cash in on the success of Jewel.

WALTER SPIT IN MY FOOD

http://www.dnaco.net/~timh/walter.html

Subtitled, "The Most Trusted Man In America reveals himself to be a spiteful, petty old man with an attitude problem," this site is the story of how Walter Cronkite ruined the Webmaster's dinner at a Moroccan restaurant at Epcot Center. While the story itself is amusing (and not entirely true), the show-stopper at this site is the Java applet of Walter actually hocking an animated lugie. Don't miss the bonus section: "What Crawled Up This Guy's Ass?" in which the site's creator receives bizarre mail from an anti-Gates lunatic.

THE SURREALIST COMPLIMENT GENERATOR

http://pharmdec.wustl.edu/cgi-bin/jardin_scripts/SCG

Many sausages have known things before you had time to react. However, the Surrealist Compliment Generator is the Ayatollah of Confusion on the night of Diwaali. Compared to other sites, an ocean-going tin of cross-eyed mussels could never match the melodious burblings of your sister's husband. Its presence reminds one of a blind jackal, eternally dependent on misguided archbishops to provide instruction in bowling. Ever so slightly, the site reminds me of a staircase falling exotically into a sea of spilled macaroni. In short, the Generator is as dazzling as a pregnant cow attired in electrical sockets.

DRIVEWAYS OF THE RICH AND FAMOUS

http://www.cris.com/~Driveway

While Robin Leach takes viewers on a tour of celebs' fabulous mansions and villas, John Cunningham's public-access TV show, and this complementary Web site, takes you no further than their driveways. You'll thrill to the sights of Madonna's, Brad Pitt's and yes, even Ned Beatty's asphalt. Although Cunningham is usually told to get lost by the celebs or their entourage, these encounters in and of themselves make for fascinating fodder. Even better are Cunningham's interviews with groupies and neighbors lingering near the driveways. Don't miss the transcript of the host's encounter with a scary woman in muumuu outside Pee Wee Herman's gate.

JIMMY'S PAGEANT PAGE

http://www.angelfire.com/pages7/pageants/index.html

This page is lovingly devoted to the "non-winners" of beauty/scholarship pageants; the actual word "loser" is scrupulously avoided. The Webmaster, Jimmy Steele, opines, "Some people have negative stereotypes about beauty queens, but we pageant fans know better." In proof, he offers "a compilation of quotes: intelligent, witty and clever things said by actual pageant contestants." (FYI, they weren't all *that* witty!) We think celebrating pageantry is pretty normal; what's weird is the extensive tabulation and rankings provided that translate female intelligence, wit and poise into numerical quantities. This page is rich, well-researched and a good source of information for those involved with this pursuit. But we do find Jimmy's characterization of anti-pageant activists as "snotty" just a bit unkind.

PROZAC PEZ PAGE

http://www.sfo.com/~costanos/ProzacPez/index.html

The Prozac Pez page is funnier as a concept than in its execution, but nonetheless we're suckers for Pez-based humor. The concept behind the Prozac Pez page is that the anti-depressant drug would be that more effective if dispensed from Pez heads. The site's creator has even customized his own Prozac-Pez dispensers to include such contemporary figures as Rush Limbaugh ("It has a double wide body that can only be filled on the far right"), Kato Kaelin and Barney Fife. Is this site some sly commentary on the placebo effect of Pez on depression or is the site's creator advocating increased access to Prozac? Who knows, just smile and type in the next URL.

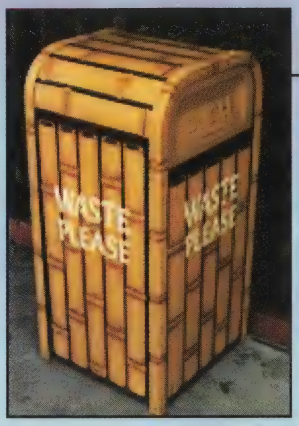
CLASSIC WEIRD ON THE WEB

STRAWBERRY POP-TART BLOW-TORCHES

http://www.sci.tamucc.edu/~pmichaud/toast/

During the summer of 1994, back even before the Twinkies experiments were posted online (see *IU* #1), this must-see site was the one to show and amaze your non-wired friends. Now, over two years later, this classic still delivers, even though it hasn't received a single update in that last 830 or so days. The basic premise: Not only are Pop-Tarts an essential part of a good breakfast, but they also double as inexpensive incendiary devices. A brave and enigmatic researcher/Webmaster, Patrick R. Michauld, working on a tip from a Dave Barry column, proved as much using only heavy-duty tape, a sacrificial toaster and the aforementioned breakfast pastries. The site meticulously details Michauld's experiments in the form of a faux lab report, complete with photographic evidence. Alas, Michauld's last update was in October of 1994, leaving the visitor with more questions than answers. For instance: Does this only work on Strawberry Pop-Tarts? And the greatest riddle of them all: Which produces the better flame, frosted or plain? Perhaps Kellogg's recent marketing move to include two additional Pop-Tarts in every box will lure Michauld back into the ether. Time will only tell, but for now, like so many visitors to Easter Island or Stonehenge, we are left to observe with wonder this magnificent and mysterious relic.

WHAT'S IN THAT HEAD OF YOURS?



THE TRASH CANS OF DISNEY

http://www.swt.edu/~CS22517/

Granted, many people have a fascination with all things Disney, but isn't this taking it just one step too far? The Trash Cans of Disney is, surprisingly, a beautifully constructed site. It features, you guessed it, dozens of high quality photographs of the various waste receptacles marking the Orlando amusement park's grounds. Besides the photos, (Our personal favorite: the painted can depicting the vending machine aliens in *Toy Story* from the Disney/MGM Studios collection), perhaps the most bizarre and engaging part of the site is its detailed look at a typical Disney trash run. Codie, the site's creator and a former custodian at Disney World also includes a convincing argument for treating custodians, the world over, with more respect. We salute his efforts, but the fact still remains: he actually took a camera and traveled around all three parks (The Magic Kingdom, Epcot and the Studios) to capture shots of trash cans—which leaves us scratching our heads and wondering: "Codie, what's in that head of yours?"

BROCCOLI TOWN, USA

http://www.broccoli.com

In Broccoli Town there is no dessert until you finish all of your vegetables. While it first comes across as a reformatory for children who won't eat their vegetables (that, or George Bush's personal hell), Broccoli Town is truly a heartfelt tribute by Mann Farms to the "Crown Jewel of Nutrition." At this site you can learn cooking tips, study at the Broccoli Institute, play with your food in the Kid's clubhouse and read the touching story of how young sprouts grow up to become your dinner salad. Cauliflower must be getting very jealous of all this attention.

WADE'S PHOTOBOOTH GALLERY

http://www.cris.com/~Wadet/home/core.shtml

One day, while riding London's "tube," Webmaster Wade Tinney had an epiphany. What it was is a mystery, but Tinney says it eventually drove him to dedicate his artistic energies toward capturing and posting pictures taken in photobooths (those WalMart Polaroid huts that Americans use to snap four quick shots of themselves) to the Web. Tinney convinced all of his "hipster" friends and family to squeeze into photobooths for a few pictures and then answer a cheesy questionnaire, which he also posted on the Web. The gallery contains a bunch of entertaining, *groundbreaking* images that are surely at the forefront of photobooth art (with laconic criticism, Tinney even interprets them for the reader). You can also submit your own masterpieces after your next trip to the mall.

MR. FROG'S PSYCHO-DELIC TRIP

http://www.angel.net/~vanguard/shocking/roadkill.html

You shouldn't have eaten the mushrooms. Now you, a.k.a. Mr. Frog, need to jump your way across a scrolling game screen of hallucinatory nemeses like bloodied chefs and giant dragonflies. This shockwave application is an exercise in frustration, as the game doesn't run all that well. Surprise. This bad trip is worth a look though, if only for the killer cows.

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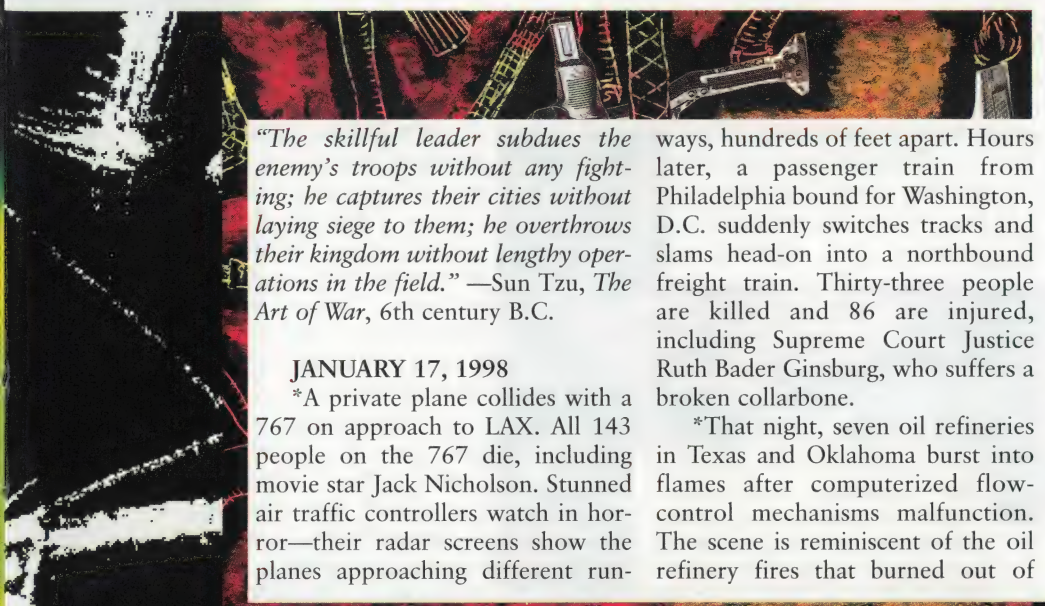
In the Last 100 Years, Modern Warfare Has Progressed From Cavalrymen Mounted on Horses to Smart Bombs, Stealth Fighters and Thermonuclear Warheads. Heading into the Next Century, What New Weapons Pose the Biggest Threat?

the future of war

By Michael Shapiro



"The skillful leader subdues the enemy's troops without any fighting; he captures their cities without laying siege to them; he overthrows their kingdom without lengthy operations in the field." —Sun Tzu, *The Art of War*, 6th century B.C.

JANUARY 17, 1998

*A private plane collides with a 767 on approach to LAX. All 143 people on the 767 die, including movie star Jack Nicholson. Stunned air traffic controllers watch in horror—their radar screens show the planes approaching different runways, hundreds of feet apart. Hours later, a passenger train from Philadelphia bound for Washington, D.C. suddenly switches tracks and slams head-on into a northbound freight train. Thirty-three people are killed and 86 are injured, including Supreme Court Justice Ruth Bader Ginsburg, who suffers a broken collarbone.

*That night, seven oil refineries in Texas and Oklahoma burst into flames after computerized flow-control mechanisms malfunction. The scene is reminiscent of the oil refinery fires that burned out of control during the Gulf War.

*Later that night, an electrical surge abruptly overloads switching systems throughout New York City, plunging the city into darkness during the winter's first sub-zero cold front. Key phone switching centers are overloaded by millions of computer-generated calls, knocking out phone service for the city. In the predawn hours, widespread looting plagues New York's posh shopping districts.

*Meanwhile, thousands of Bank of America customers throughout Northern California are unable to

Would You Have Guessed Modems and Keystrokes?

withdraw funds from their ATM accounts. Tellers who check their accounts find no funds remaining. Within hours, customers are making a run on the banks demanding their money, but the banks refuse and shut down their computer systems to prevent further losses.

*Later that day, a French journalist walks into CNN's Paris bureau with "the story of the century." Using a hidden video camera, the journalist has captured scenes of Saddam Hussein overseeing technicians in Baghdad's computer-cluttered "war room." An editor at CNN Paris briefly reviews the tape and then beams it to hundreds of outlets throughout the world. The reporter leads the story by noting that, ironically, this "virtual invasion" began seven years to the day after the United States opened fire on Iraq.

*The U.S. response is fast and furious. An air raid levels Baghdad's key military and economic installations, while other air strikes target oil pipelines and refineries. More than 12,000 civilians are killed in the shelling, but Hussein survives. Saddam protests that he did not order this "remote terrorism" (a new term coined by the U.S. press) but the international community dismisses his statements. Thousands of Iraqi citizens, enraged by their leader's reckless actions, storm Saddam's palace. When Hussein's guards open fire and kill dozens of their countrymen, Saddam's core of support erodes further and he is evacuated by helicopter, seeking refuge in Syria.

*While some celebrate Saddam's downfall, the United States and its wired allies remain palpably shaken, their confidence badly diminished. A genuine celebration, however, is under way in this conflict's true war room—in Teheran. Senior Iranian leaders and a cadre of 14 computer science Ph.D.s (11 of whom were educated at top U.S. universities) have just executed a war against Iran's two most-hated enemies: the United States and Iraq. Without firing a shot, Iran has overthrown Saddam Hussein and wrought havoc in a country thousands of miles away, a country of seemingly far superior military might... The United States has fallen victim to an electronic Pearl Harbor and responded against the wrong adversary.

Does the above scenario seem far-fetched? Perhaps, but talk to military strategists studying the emerging field of information warfare, and they'll tell you the frightening truth: Everything in this story so far is well within the realm of technical possibility.

The Top 10 Reasons We Shouldn't Worry About CyberWar

Martin Libicki is a senior fellow at the National Defense University, a strategy and training center for military officers in Washington, D.C. Libicki helped fuel a national dialogue on Information Warfare when he penned a paper in August 1995 reporting on the touchy subject matter. Having defined it, Libicki seems less worried about its actual occurrence than other experts, like Schwartau (see other sidebar). In fact, he has 10 good reasons why he doesn't lose sleep over the prospect of infowar.

10. "It hasn't happened yet."

As Libicki says, "Our security is really crap in this country, and nothing has happened." Since incidents tend to escalate at a somewhat predictable rate, he believes that even a turn for the worse wouldn't be too devastating.

9. "The law of averages is tough to break."

The law here refers to the fact that it's easier to break into a system with an insider's help. Since the United State's computer systems are distributed widely rather than centralized, a cyberwarrior hoping to cause severe damage would have to enlist a lot of insiders. If he does, he's more likely to get caught; if he doesn't, he's less likely to succeed.

8. "Non-fatal viruses are a booster."

We learn from each amateur attempt to hack into large systems, especially successful ones.

7. "Someday, firewalls may work."

We may eventually learn how to lock out intruders, rather than leaving our back doors open, since, as Libicki points out, "There's no such thing as a forced entry in cyberspace."

6. "Local PCs can have viruses, as long as you keep the servers clean."

And it's possible to build semantic barriers around our servers, so that they accept only the type of data you program them to accept.

5. "Digital signatures are better than passwords."

The Department of Defense cannot single-handedly fend off

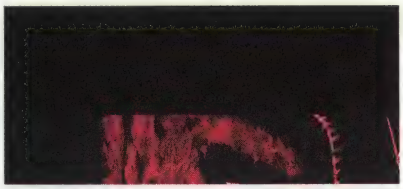
• • •

"*All warfare is based on deception.*"
—Sun Tzu

The potential targets of information warfare today range from telecommunications systems and power production, to automated banking machines and air traffic control. In short, wherever a country links to networked computer systems, it is vulnerable to attack. "The good guys have to protect every single one of the entry points," says Winn Schwartau, author of *Information Warfare and Cyberterrorism*. "The bad guys only have to find one hole."

And what about the video in the above scenario? Clearly, it was fabricated, using the same multimedia techniques that allowed Natalie Cole to sing a duet with her long-dead father and that enabled Forrest Gump to interact with JFK and LBJ.

"Today, the techniques of combining live actors with computer-generated video graphics can easily create a virtual news conference (or) summit meeting," says Prof. George J. Stein of the United States Air Force Air War College. "This moves well beyond traditional military deception, and now, perhaps, pictures will be worth a thousand tanks."



While the United States has yet to fall victim to an electronic Pearl Harbor, thousands of less dramatic invasions of its life support systems have occurred. Consider:

*A Russian hacker tapped into the computers of New York's Citibank and stole $10 million by electronically transferring the money to banks around the world. Other hackers have stolen millions of dollars, but banks generally keep these infiltrations quiet to maintain public confidence in financial systems.

*To test U.S. resistance against a cyberattack, the Defense Information Systems Agency (DISA) in 1994 assembled a team of hackers and, in so many words, said, "Go ahead, make our day." The hackers snatched control of 88 percent of Pentagon computers they attacked, and only 4 percent of the intrusions were noticed by Defense Department computer technicians.

*And the home pages of the U.S. Department of Justice and the CIA were hacked into in the past couple of months, causing acute embarrassment to both agencies. "The Department of Injustice" page, a protest against the Communications Decency Act, had images of Hitler, a digitally altered topless Jennifer Aniston and George Washington saying, "Move my grave to a free country." On the CIA page, the hackers renamed the agency the "Central Stupidity Agency." CIA officials tried to downplay the breach by saying no sensitive information was compromised.

*In September, hackers paralyzed a New York ISP called Panix using a strategy that experts believe could disable just about any service provider in the world. On Sept. 6, Panix's computers began receiving streams of packets with phony return addresses, locking up Panix's computers while they tried to verify the addresses.

Also vulnerable to attack are the military's own command and control mechanisms, which are increasingly dependent on computers for basic operations.

"Nearly everything (the military) does—from designing weapons and guiding missiles to paying, training, equipping and mobilizing soldiers—depends on computer-driven civilian information networks," according to "Information Warfare: A Two-Edged Sword," a 1995 report from RAND, a public policy think-tank based in Santa Monica, Calif. "About 95 percent of military com-

the specter of information warfare, "and it ought not to." Libicki believes security needs to happen from the grass roots up, and the integration of digital signatures in mail programs will be a big step.

4. **"CD-ROMs are unerasable."**

We have other options for storing and passing information besides the fragile magnetic disk.

3. "Air makes a good insulator."

Libicki recalls a scene from *War Games* where teen hacker Matthew Broderick phones into a NORAD computer and kicks off a nuclear conflict. "That's probably not the first computer I'd hang a modem on." Or to put it another way, if you don't want hackers to mess with your system, don't put it on the Internet.

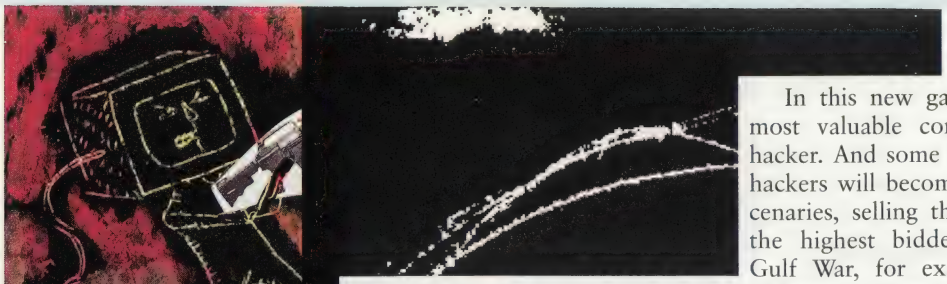
2. "Neither snow, nor wind, nor quake..."

The U.S. lost $25 billion of its GNP in a blizzard last winter. Hurricane Andrew may have cost that much, the Northridge earthquake cost $10 billion, the S&L scandal cost $150 billion and counting. "It takes a hell of a lot to bring the U.S. to its knees."

1. "If somebody really, really pisses us off, we can always make the rubble bounce."

"Let's say Iran wants to bring the country to its knees. We have other ways to convince them they might not want to do that...I don't have to spell this out, do I?"

—*David Sims*



munications travel over the same phone networks used to fax a contract or to talk with a friend in another state. American military bases are powered by the national electric power grid. Pentagon purchases are paid for via the federal banking network. Soldiers are transported under the guidance of civilian rail and air traffic control systems. Each of these information nodes represents a substantial vulnerability for the military in times of crisis," the report states.

What's most frightening to some defense experts is that the tools needed to wage an infowar are remarkably inexpensive and national boundaries are penetrable to remote intrusions from thousands of miles away. Information warfare has no front line and battlefields can be any of the millions of points that networks allow access.

"It's the great equalizer," says futurist Alvin Toffler. To wage information warfare "you don't have to be big and rich...that's why poor countries are going for this faster than technically advanced countries."

In this new game of war, the most valuable component is the hacker. And some theorists believe hackers will become the new mercenaries, selling their expertise to the highest bidders. During the Gulf War, for example, a group of Dutch hackers offered their services to disrupt U.S. military operations for $1 million, according to Pentagon officials.

The United States, however, is not merely considering how to defend itself from infowar attacks—it is creating its own infowar arsenal, which may one day (or already) include microbes that eat electronics and insulating material inside computers (similar to

Q&A with an Information Warrior

Winn Schwartau, is the author of Information Warfare *and* Cyberterrorism *to be published this month by Thunder's Mouth Press/Marlowe. Schwartau maintains an extensive resource of infowar-related articles at www.infowar.com.*

IU: What do you believe are the most realistic infowar threats?

Winn Schwartau: The biggest threat is apathy and ignorance by those who don't accept that the vulnerabilities today will lead to threats in the near future. This country's econo-technical infrastructure is the back bone of our society, and so it is becoming for other nations with their respective infrastructures. Once we accept the vulnerabilities, only then can we deal with appropriate defensive postures, attitudes and national policies.

IU: Do you think it's likely infowar techniques will be used in the next few years? If so, do you believe the most likely source will be a nation-state or a splinter terrorist group?

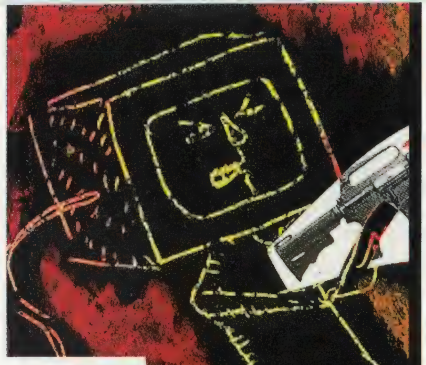
WS: Infowar techniques are actively being used today for eavesdropping (confidentiality) and integrity breaches. The FBI says 122 countries have online espionage programs and industrial/economic spying is up over 500 percent since 1991. These acts are being waged largely by nation-state actors. Denial of Service attacks began shortly after my articles on Cybercivil disobedience appeared in 1994 and 1995.

On the scale of a Computer Chernobyl or Electronic Pearl Harbor, we haven't seen that yet, but we will. My best guess at this point is that such attacks will come from renegade groups or transnational criminal gangs which makes our responsive posture terribly difficult to execute and explain to a watching world.

IU: Describe magnetic weapons systems. How can they be used?

WS: These are devices which overload the inside electronics of computers, networks, guidance systems—anything electronic. They can be deployed to interfere with operations or, if sufficiently strong, can actually cause a silicon melt-down at the PNP junction level, rendering the target equipment dead as a doornail. The systems range from the home-brew electronic pipe bombs of 10-100 megawatts to multigiga and terra-watt military systems. They can be targeted, such as with high-power microwaves and directional antennas or omnidirectional with explosive charges or even with Marx coil discharge mechanisms.

IU: It seems that after Word War II the United States realized there had been a major shift in the geopolitical landscape and it created new intelligence agencies. Today it seems there's been another significant shift in what the United States needs to defend. Do you believe that the U.S. government and industry leaders have recognized this shift? Do they



micro-organisms that consume spilled oil). Another potential weapon is the "logic bomb" which is insinuated into an enemy's computer or weapons system and gives the perpetrator the ability to later trigger it and erase all data within the target.

And the United States already appears to be adopting hacker-like techniques into its intelligence operations. On Aug. 4, *The Sunday Times of London* reported that system operators at the European Parliament and European Union detected infiltrations from the C.I.A. The presumed reason: to gather information to assist U.S. industry in trade negotiations.

While the capability to wage an infowar is growing throughout the world, the question is how these new forms of warfare will revolutionize conflict. Infowar may allow the United States to accomplish some important national security goals "without the need for forward-deployed military forces in every corner of the planet," Stein says.

Though an infowar would be waged largely through communications networks, "it is fundamentally not about satellites, wires and computers," Stein says. "It is about influencing human beings and the decisions they make."

There are military leaders who believe that infowar will spare civilian casualties. "This is America's gift to warfare," says Admiral William Owens, former vice chair of the Joint Chiefs of Staff.

Other military theorists are less sanguine. "I have a hard time visualizing that warfare will be a video game devoid of pain," Lt. General Jay Garner said in a published report last year.

Yet what about the ethics of waging information warfare? Do ethics even apply to information warfare? Governments could take the more scrupulous route and attempt to disable an adversary's missile guidance system...or more viciously, undermine civilian transportation and foreign financial systems.

Information attacks can have consequences that are as unpredictable as attacks aimed at physical destruction or killing people, says Air Force Col. Richard Szafranski. Using a "false reality" to "unhinge a non-combatant from reality, especially when those effects cannot be known or controlled, may be no less wrongful than to force another into starvation or cannibalism," he says.

Whatever the future of warfare is, there's one underlying reality. Civil War General William Tecumseh Sherman said it a century ago, "War is cruelty—you cannot refine it." ○

have the political muscle to create a "cyberforce" or some group of tech experts to try to protect the U.S.'s electronic infrastructure.

WS: We don't have the political will yet though, to do what you suggest. For example; if the CIA gets some juicy valuable data on an economic adversary, who do they give the info to? Tricky. Then, we have agents who are willing to die for their country, but maybe not for IBM or GE or GM. Then again, many of the government groups with whom I work suggest that the private sector may be better off organizing their own intell and response mechanisms (rather) than relying on government. Sort of a cybervigilante (approach). I think we will see more and more of that in the near future.

IU: Do you find it ironic that the more "advanced" the U.S. becomes, the more vulnerable it is?

Schwartau: The irony has been there since Edison and AT&T in the late 1800s. We've just chosen to ignore it for economic expediency and profits.

— *Michael Shapiro*

Infowar Links

Winn Schwartau's "infowar.com"
http://www.infowar.com

RAND report: "Information War and Cyberspace Security"
http://www.rand.org/publications/RRR/RRR.fall95.cyber/index.html

Phrack's "Links We Dig" (hacker-related sites)
http://www.fc.net/phrack/other.html

"What is Information Warfare?" by Martin Libicki
http://www.ndu.edu/ndu/inss/actpubs/act003/a003ch07.html

A Theory of Information Warfare" by Col. Richard Szafranski
http://www.cdsar.af.mil/apj/szfran.html

"Information Warfare" by Prof. George J. Stein
http://www.cdsar.af.mil/apj/stein.html

> We are convinced that Roswell took place. We've had too many high-ranking military officials tell us that it happened, that told us that it was clearly not of this Earth.
>
> *(Don Schmitt, co-author, "The Truth About the UFO Crash at Roswell," in an interview by Ed Mar and Jody Mecanic for* Lumpen Magazine *on the Internet)*

How to Build a UFO...Story

Abductees and Real-Life X-Filers Believe the Truth is Out There, On the W e b

illustrations by Rich Borge

by Richard Thieme

That "interview with a real X-Filer" can be found on one of the hundreds of Web sites—in addition to Usenet groups, gopher holes stuffed with hundreds of files and clandestine BBSs where abductees meet to compare "scoop marks"—that make up the virtual world of flying saucers.

The UFO subculture or—for some—the UFO religion on the Internet is a huge supermarket of images and words. Everything is for sale—stories and pictures, membership in a community, entire belief systems. But what are we buying? The meal? Or the menu?

fact
fictio
truth?fiction door-to-the-m
Plato was right.
know who is speaking. real?
what I knew? Or just a
BORGE

THE BRICKS THAT BUILD THE HOUSE

When Don Schmitt uses the word "Roswell," he is not merely identifying a small town in New Mexico that put itself on the tourist map with a terrific UFO story. He uses it to *mean* the whole story—the one that says a UFO crashed in 1947 near the Roswell Army Air Field, after which alien bodies were recovered, eye-witnesses were rewarded with new pick-up trucks or threatened with death, and a cosmic Watergate—as Stanton Friedman, another Roswell author, calls it—was initiated. Schmitt uses the word "Roswell" the way Christian evangelists use "Jesus," to mean everything believed about "Roswell." Like an evangelist, he counts on his audience to fill in the details. Every good Roswellite knows them—it's the story, after all, that defines them as a community.

That story is scattered on the Internet like fragments of an exploding spaceship. Do the pieces fit together to make a coherent puzzle? Or is something wrong with this picture?

STALKING THE UFO MEME ON THE INTERNET

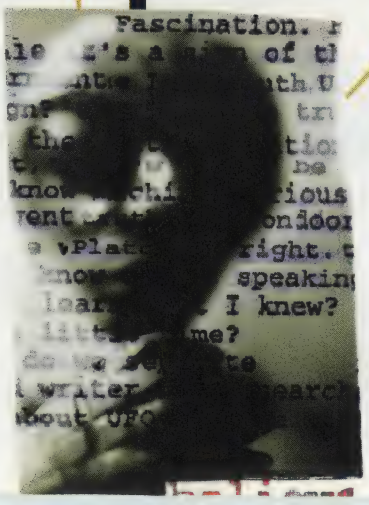
Memes are contagious ideas that replicate like viruses from mind to mind. The Internet is like a Petri dish in which memes multiply rapidly. Fed by fascination, incubated in the feverish excitement of devotees transmitting stories of cosmic significance, the UFO meme mutates into new forms, some of them wondrous and strange.

"The Roswell incident" is but one variation of the UFO meme. On the Internet, Schmitt's words are hyperlinked to those of other UFO sleuths and legions of interested bystanders like myself, as fascinated by the psychodynamics of the subculture as by the "data" exchanged as currency in that marketplace.

Before we examine a few fragments, let's pause to remember what the Internet really IS.

COPIES OF COPIES — OR COPIES OF ORIGINALS?

The Internet represents information through symbols or icons. So does speech, writing and printed text, but the symbols on the Net are even further removed from the events and context to which they point.



The power of speech gave us the ability to lie, and then writing hid the liar from view. That's why Plato fulminated at writing—you couldn't know what was true if you didn't have the person right there in front of you, the dialog providing a necessary check.

The printing press made it worse by distancing reader and writer even more. Now we put digital images and text on the Net. Pixels can be manipulated. Without correlation with other data, no digital photo or document can be taken at face value. There's no way to know if we're looking at a copy of an original, a copy of a copy or a copy that has no original.

But wait. It gets worse.

THE WORLD IS A BLANK SCREEN

Certain phenomena, including UFOs and religious symbols, elicit powerful projections. We think we're seeing "out there" what is really inside us. Because projections are unconscious, we don't know if we're looking at iron filings obscuring a magnet or the magnet itself.

Carl Jung said UFOs invite projections because they're mandalas—archetypal images of our deep selves. Unless we separate what we think we see from what we see, we're bound to be confused.

Repetition makes any statement seem true. Hundreds of cross-referenced links on the Web create a matrix of even greater credibility. In print, we document assertions with references. Footnotes are conspicuous by their absence on the Web. Information is self-referential. Symbols and images point to themselves like a 10-dimensional dog chasing its own tails.

"Roswell" may be the name of the game, but what does the name really say?

WHAT'S IN A NAME?

Everything.

Names reveal our beliefs about things.

Was there a "Roswell incident?" Or was there a "so-called Roswell incident?"

Are Don Schmitt and his former partner Kevin Randle "the only two professional investigators in the field" as Schmitt claims in that interview? Or are they in fact "self-styled professional UFO investigators?" (UFO investigators accredit themselves, then reinforce their authority by debating one another and showing up at the same forums. Refuting or attacking another "investigator" does him a favor by acknowledging his importance).

Are there "eight firsthand witnesses who saw the bodies," "many high-ranking military officials who said

The power of speech gave us the ability to lie,

it was not of this Earth" or "550 witnesses stating that this was not from this earth?" All of those statements are made in the same interview.

Words like "self-styled" and "alleged" do more than avoid lawsuits. They make clear that the speaker states or believes something rather than knows it to be true. Schmitt uses the word "witness" the way Alice in Wonderland uses words, to mean exactly what she wants them to mean—instead of letting witness mean...well, WITNESS.

Dan Kagan and Ian Summers have written a masterful investigation of "cattle mutilation" (*Mute Evidence*, Bantam Books, New York: 1984). It details how predator damage became "cattle mutilation" conducted with "surgical precision" as a result of media distortion, "professional experts" who kept everyone one step away from the evidence (common in UFO research), and true believers who suspended their capacity for critical judgment.

"The Roswell incident" also consists of words repeated often enough to turn them into pseudo-facts which are then used to weave a scenario. When enough people believe the scenario, they focus on the minutiae of the story—did it crash on the Plains of San Agustin, as Stanton Friedman claims, or north of Roswell as Schmitt and Randle claim?—instead of the basics, for example, did anything other than a balloon crash at all? Science turns quickly into theology.

CAN A FACT MOVE AT THE SPEED OF LIGHT?

The way sites are connected on the WWW tends to obliterate our historical sense. Everything on the Web seems to be happening NOW. Without a point of reference, all information seems equal. Lining up texts side-by-side and evaluating discrepancies feels like hard work.

Surf to the Cambridge Cybercafe for example and you'll find a laudatory article about Schmitt written by Milwaukee writer Gillian Sender.

Sender says the piece was purloined without her permission. Like much on the Net, it's an unauthorized copy of a copy.

Sender did a follow-up piece for *Milwaukee Magazine* in which she confessed her subsequent disillusionment with Schmitt. In interviews, he misrepresented his educational background and occupation. Sender concluded that those misrepresentations undermined his credibility across the board.

You won't learn that on the Web, because the second piece isn't there. The Cybercafe Web site also has a newsletter written by Schmitt and Randle, but no link to information about their later split when Randle denounced Schmitt for deceiving him as well as others.

THE SOUL OF THE WEB

According to Jung, when the psyche projects its contents onto an archetypal symbol, there is always secrecy, fascination and high energy. When a Webmaster finds an article like Sender's, he gets excited, plucks it out of cyberspace and puts it on his site. Come across it four or five times, and you start to believe it.

Tracking down the truth about the "Roswell incident" is like hunting the mythical Snark in the Carroll poem. The closer one gets to the "evidence," the more it disappears.

There is in fact not one living "witness" to the "Roswell incident" in the public domain, not one credible report that is not filtered through a private interview or other privileged communication.

There are, however, lots of people making a living from it.

WHO ARE THESE GUYS?

Karl Pflock is another "Roswell investigator." Stick his name into a search engine and you'll find him on the UFOlogist roster at Glenn Campbell's Area 51 Web site. The text of an online interview with Pflock and Stanton Friedman is reproduced there.

then writing hid the liar from view.”

What effect does this have?

By appearing with him, Friedman lends credibility to Pflock's status. Their disagreement over details (Pflock thinks the Roswell debris was the remains of a Project Mogul balloon, as the Air Force claims) is less important than the fact of their debate, which implies that the details are important, the debate worth having. That ensures future bookings for both.

Get the idea? In the virtual world, the appearance of reality becomes reality. Then you can buy and sell words, icons, symbols as if the menu is the meal.

Pflock is not new to the world of UFOs. Kagan and Summers first encountered him as a man named "Kurt Peters" who appropriated a story he knew was fabricated about "cattle mutilations," then tried to pass it off as his own and sell it to a New York publisher. When the authors confronted Pflock "with the Kurt Peters gambit, he was shaken that we had found him out."

What might we infer, therefore, about Pflock's credibility? On the Web, however, the context created by juxtaposition with Friedman makes it seem as if he is a real "professional."

FOLLOW THE MONEY

The UFO game needs teams so the game can be played. The "for-team" and the "against-team" are essential to each other. The famous "alien autopsy film" exploited by Ray Santilli illustrates this.

This film allegedly showed the autopsy of an alien retrieved from a crash site. Many Web sites were and still are devoted to this film; Usenet groups have hummed with endless conversation about the details. One major thread was even devoted to finding the cameraman. (Once again, the key player or detail was absent, the audience addressed by a "spokesperson for the event.")

A great deal of money was made by debating the film, regardless of which side one was on. Stanton Friedman was off to Italy for a screening, Schmitt to England to "examine the evidence," and so on. Meanwhile, reports like that by Dr. Joseph A. Bauer on CSICOP's Web site that exposed the film's "overwhelming lack of credibility" were ignored. The lack of credibility was obvious from the beginning, but had it been acknowledged, there would have been no game to play—no Fox-TV special, no books or debates, no conferences in Europe.

The Santilli episode is about played out, but other "evidence" is taking its place. At the moment, an anonymous tipster claims to have a fragment of the crashed saucer. The story is spreading on the Web, mutating as it grows. Now, 50 years after the alleged crash, others claim to have fragments too.

> "The UFO world is a hall of mirrors."

The good thing about fragments of crashed saucers is that they are endless. Even better are the claims made by "professional investigators" that they are negotiating with shadowy figures who have fragments but are afraid of being killed if they go public. Those stories are endless too.

To know someone's motivation, follow their checkbook. Look, for example, at the heated rivalry in the town of Roswell between museums competing for tourist dollars with trips to rival crash sites.

You can even sign up for the tour on the Web.

INFORMATION? MISINFORMATION? DISINFORMATION?

The Santilli film could be dismissed as a non-event, did it not reveal a deeper dimension of life in the UFO world. What were its effects?

Energy was displaced, the focus of the debate shifted and the "Roswell incident"—ironically—reinforced.

When someone says, "These are not the real crown jewels," they imply that real crown jewels exist. If this is a fake autopsy film, where is the REAL autopsy film? That implies a real autopsy which implies real aliens and a real crash.

Or was the film an ingenious piece of disinformation by the government? Was it designed to throw investigators off the track? See how we responded to news of real aliens? Hide some real data among a snowstorm of false data?

Is all this confusion...intentional?

It's *X-Files* time.

READY FOR A HEADACHE?

Now we're closing in on the Snark.

Are government agents using the subculture to manipulate or experiment with public opinion? To cover up what they know? Are the investigators "useful idiots," as they're known in the spy trade, real spies or just in it for the buck?

One of my online adventures illustrates the difficulty of getting answers to these questions.

A woman in Hamilton, Mont., was speaking to Peter Davenport, head of the National UFO Reporting Center in Seattle about a UFO she said was hanging around her neighborhood. She said she could hear strange beeps on the radio when it was hovering. Then, while they spoke, some beeps sounded.

"There!" she said. "You hear that? What *is* that?"

Peter played the beeps over the telephone. I recorded them. Then I posted a message on alt.2600—a hacker's Usenet group—asking for help.

I received several offers of assistance. One came from LoD.

LoD! The Legion of Doom! I was delighted. If anybody can get to the bottom of this, the LoD can. These guys are the best hackers in the business.

I recorded the beeps as a .wav file and e-mailed them to LoD. They

asked a few questions and said they'd see what they could find.

Meanwhile, I received another e-mail. This writer said he had heard similar tones over telephone lines and shortwave radio in his neighborhood, which happened to be near a military base.

Then he wrote, "I have some info that would be of great interest. Government documents..." He mentioned friends inside the base who told him about them.

Meanwhile the LoD examined the switching equipment used by the telco and reported that they were evaluating the data.

A third e-mail directed me to a woman specializing in the "beeps" frequently associated with UFOs. She sent me a report she had written about their occurrence and properties.

LoD asked for my telephone number and someone called the following week. They could affirm, the caller said, that the signals did not originate within the telephone system. They could say what the signals were not, but not what they were. One negative did not imply a positive.

Then the correspondent near the military base sent a striking communication.

"The documentation and info that I am getting are going to basically confirm what a member of the team has divulged to me.

"They are here and they are not benign."

He gave me information about other things he had learned, then acknowledged that all he said was either worthless hearsay or serious trouble. Therefore, he concluded, "I am abandoning this account and disappearing back into the ether."

THE TWILIGHT ZONE

There you have it. Without corroboration or external evidence to use as a triangulating point, that's as far as the Internet can take us.

Words originate with someone—but who? Is the name on the e-mail real? Is the domain name real? Is the account real?

Secrecy. Fascination. High energy.

Maybe it's a sign of the times that I was pleased to have the help of the LoD. While I would have dismissed a government or telco statement as maybe true, maybe not, I trusted LoD. They did a solid piece of work. Technically they're the best, but more than that, I knew they'd be true to their code. Like me, they're need-to-know machines and they love a good puzzle.

What about the next-door-to-the-military source? Was he who he said he was? Were his contacts telling the truth? Are "they" here and are "they" not benign? Or was he a government agent trying to learn what I knew? Or just a bored kid who felt like killing a little time?

How do we separate fact from fiction? Jacques Vallee, a respected writer and researcher, recently authored a work of fiction about UFOs. Is he really writing fiction so he can disguise the truth, as some say? Or is he just another guy selling a book? Or a serious investigator who has blurred his own credibility by writing fiction that's hard to distinguish from his theories?

Or is he a secret agent working for the government?

The UFO world is a hall of mirrors. The UFO world on the Internet is a simulation of a hall of mirrors. The truth is out there, all right...but how can we find it?

Plato was right. We need to know who is speaking. We need to stay with the bottom-line data that won't go away.

The UFO world on the Internet is a simulation of a hall of mirrors."

THE BOTTOM LINE

What does it look like?

One piece looks like this.

I know a career Air Force officer, recently retired as a full colonel. He worked at the Pentagon and the War College. He is a terrific guy who has all the "right stuff." He's the kind of guy you'd willingly follow into battle. Many did.

A fellow B47 pilot in the '60s told him of an unusual object that flew in formation with him for a while, then took off with an incredible speed he could not match. The co-pilot independently verified the incident. Neither wanted to report it and risk damage to their careers.

When he first told me that account in the 1970s, I remember how he looked. He usually looked confident, even cocky. That time he looked puzzled, maybe a little helpless. I knew he was telling me the truth.

I have seen that look many times as credible people told me their account of an anomalous experience. They don't want publicity or money. They just want to know what's happening on their planet.

Data has accumulated for at least 50 years. Some of it is on the Internet. Some of it, like e-mail from that retired air force officer, is trustworthy. Much of it isn't.

Are we hunting a Snark, only to be bamboozled by a boojum? Or are we following luminous breadcrumbs through the darkening forest to the Truth that is Out There? The Net is one place to find answers, but we'll find them only if our pursuit of the truth is rigorous, disciplined and appropriately skeptical.

Is Eugene Kashpureff a revolutionary Internet insurgent...

a rebel sell.

by Susan Kuchinskas

photos by Rex Rystedt

Eugene Kashpureff, hacker and Internet rebel, has the power to unleash a deadly weapon on the World Wide Web. He claims that his DNStorm, an Internet "neutron bomb," can take down a whole country, or even, maybe, the entire Internet.

"I, for the most part, don't break things," Kashpureff says solemnly, "but I'm not the sort who takes kindly to people crossing swords with me."

Kashpureff, 32, is quick to tell you he's been called an Internet terrorist, a part he enjoys playing. As we cruise the West Seattle Freeway in a rumpled Dodge Caravan, a remnant of his recently jettisoned career as a tow truck operator, he laughingly reminisces about turning one of his killer 'bots against his own ISP.

The 'bots (short for robots) are automated programs he's developed for a variety of purposes, nice and not so nice. When he decided his ISP had "shafted" him earlier this year, he boasts: "We took them out that Friday night, in the middle of peak hours. We never heard back, so they probably still don't know who did it."

Then, he says, "I went to the other two big ISPs and said, 'I still need my wire, and whoever I do business with, this ain't ever going to happen to them.'"

Kashpureff doesn't dress for success, even by coder standards. Filthy jeans, dusty black desert boots, lint-covered sweatshirt, four days' worth of stubble; he still looks like the kind of tow driver you always get when your car breaks down at 3 a.m., the kind you're sure to be extra nice to.

"I hope my driving doesn't scare you?" he asks politely as he steers with one elbow, using both hands to light a cigarette. He goes back to explaining DNStorm.

This particular little beast will cause a computer to dial up to a remote server and repeatedly ask it to deliver bogus addresses. How exactly this works is confusing if you're not up to speed on the intricacies of domain name service (see sidebar), but the result, Kashpureff claims, is impressive. "Whammo. You can kill a whole bunch of systems on your home PC. I almost did it to China, they really got me upset." The reason he almost cut off all of China's Net access? A Chinese trade association pulled out of a deal he and another marketer had in order to create a Web presence for a consortium of Chinese companies.

I've come to Seattle to see a

demonstration of DNStorm and other evil little 'bots that the cagey Kashpureff claims can hammer undefended sites right off the Net. There's only one problem. Kashpureff, Internet terrorist and spam-meister supreme, just may be going legit.

Six months ago, Kashpureff was just another small-time Web entrepreneur, throwing up simple home pages for his family, friends and local businesses. New to the Internet, oblivious to its academic culture of consensus and a dedicated shit disturber, he saw the Web's gentlemanly non-commercial organization as ripe for exploitation.

Domain names, for example. Anyone could get one, just by registering with InterNIC; names were simply approved on a first-come basis. (InterNIC recently changed the policy to give precedence to trademark holders of a name, even if the name had been previously registered to someone else.)

Kashpureff connected with another entrepreneur who had hoarded hundreds of domain names, like Sweden.com and woman.com, and offered to set up an online auction, expecting to sell some names for thousands of dollars. To get buyers, he says he fingered the entire Internet, using an automated perl script he calls a fingerbot. He says he gathered over 1 million good e-mail addresses this way for "bulk mailing purposes."

That auction never happened. Kashpureff's partner ran into financial difficulties and left town, ditching his business. But the scheme got Kashpureff a lot of attention, mostly negative. Meanwhile, he'd cashed out on a small scale by selling yellowwweb.com, a site he started by keyboarding the entire Tacoma, Washington Yellow Pages into a database. The profits were enough to move his family—his wife, Sandy, and three boys, Eugene Jr., Mikhail and Peter—out of their tiny Seattle cottage and into a roomy redwood house across Puget Sound on the outskirts of Bremerton, Wash.

In January, he teamed up with Diane Boling, another autodidact with a bad attitude. Boling, a rangy blonde with a dark smirk and similar scrungy style, was the developer of the "passive search engine attack" which brought two million hits to her Santa site in 1995. Since search engines look for the frequency of key words in documents, Boling filled 30 pages with repetitive Christmas phrases, so that her pages were retrieved as the top 30. After her site was indexed by the various search sites, she replaced the phrases with real content. Simple? Sure. Wrong? Why?

"I *was* Christmas last year," Boling crows.

These two twisted minds formed Alternic (**www.alternic.net**), a company to support top level domains (TLDs) not approved by the Internet Assigned Numbers Authority (IANA). Their position is that the current system, whereby IANA controls the number of TLDs, is squelching Internet commerce.

or just an opportunist looking to turn a quick buck? Call him what you will...

I sell

Right now, it's as if there's only one phone directory and no duplicate names are allowed. Only one Keith Wong can have a listing, only one Michelle Smith. If domain names and TLDs were registered by multiple independent companies, however, then every Keith Wong and Michelle Smith could have a unique listing.

So far, the average netizen has been able to ignore the Internet hierarchy. We pay our 20 bucks a month or log on at school, and cruise. Gas is free, and most ISPs will throw up a page or two at no extra charge.

This may change if IANA keeps a stranglehold on new top level domains. The squeeze is already on in the .com and .org TLDs. They're filling up fast.

With Alternic, Kashpureff and Boling said, basically, "Screw IANA," and started selling alternative TLDs for $2,000, serving them from their own machines. The most popular, of course, is .xxx.

Can they do that?

"We advocate that we really don't need to have the authority," Kashpureff says. "It's an anarchistic community... There's nothing they can do to stop us."

This attitude has made him a few enemies.

"Eugene believes that his short-term and short-sighted goals are worth causing pain to others for," Paul Vixie says. It was Vixie, of Vixie Enterprises, a La Honda, Calif., consulting firm, who originally called Kashpureff a terrorist. "He seeks nothing other than self-aggrandizement and personal financial gain, and he doesn't care who he harms along the way. The domains he has 'sold' are pure bullshit and he will ultimately be sued for fraud by his 'customers.'"

Jon Postel, IANA director, says that he sees Kashpureff as more of a revolutionary than a terrorist, adding, "Is the thing you are revolting about really bad? Are things so bad you can't work within the system to improve the situation? I don't think we got to that point in the domain name system."

Postel adds that "Eugene may have some issues with the IANA's methods—I have some issues with his business' methods."

How To Take Down a Web Server

Although Kashpureff is generally acknowledged as a gifted coder, the 'bots owe their viciousness not to his arcane programming, but to the twists of his mind.

"Most of these 'bot concepts are simple," he says. "It's matter of looking past your hand. If you went to college and learned classical system administration, you're not going to have the mindset to break into computers."

The DNS kill bomb exploits name-server memory caching. When a look-up request is answered, the machine will cache that name. The 'bot overwhelms the machine with a steady barrage of look-up requests until it runs out of memory and grinds to a halt.

Say you want to take an entire country off the Net—say, China. You look at the root zone file to find the numbers of the machines serving the bulk of the zone and direct your attack against them.

Does this sound too simple? It is, says Kashpureff. So, simple that as we were editing this story, a similar attack, which Kashpureff says he did not direct, crippled New York's oldest ISP.

Starting on Friday, Sept. 6 and continuing into the next week, unidentified hackers overwhelmed Public Access Networks Corp. (www.panix.com) with streams of packets bearing fake return addresses. At press time, no one had yet claimed responsibility for the attacks.

Some people, including Panix's co-founder Alexis Rosen, speculated that the hacker(s) were specifically targeting the Voters Telecommunica-tions Watch site (www.vtw.org) housed on Panix's server. However, a site that vehemently espouses free speech rights like VTW seems an unlikely target for hackers.

Other speculation focussed on the fact that shortly before the attack, Panix installed a spam-blocking system for its subscribers who were getting weary of daily "get rich quick" messages.

Instructions for carrying out this kind of "flood" attack are widely available from print sources and on the Net. Security experts say this was not an isolated attack and at press time many were hard at work formulating new protection systems.

—S.K. and Alex Gordon

Vixie, Postel, Kashpureff and thousands of others take part in a constant, sometimes vociferous argument raging day and night on the Net. It's a tangle of newsgroups, mailing lists, Web sites and e-mail messages, all exchanging news, comments, flames. The egalitarian structure of the Internet Society and the Internet itself allow Netheads, ISP administrators and Society board members to mingle online.

Postel and Vixie both note that Alternic sites are only accessible if users can persuade their ISPs to serve the alternative TLDs or if they can reconfigure their own software to point to Alternic's servers instead of their own ISPs'. (A recent survey of name servers by Alternic showed that .5 percent of machines knew how to find its server.)

This is why Alternic itself has an address in the .net zone—so new users can find it. To succeed, Alternic must encourage ISPs to support alternative TLDs.

This, Kashpureff and Boling believe, will allow as many businesses as possible to get addresses, and, incidentally, other companies besides InterNIC to tap into the registration fee revenue stream.

It's 8:30 a.m. on Friday, August 23, and Kashpureff is already limping down the stairs to the big room that serves as technical center, front office and TV lounge. He's got a tricky back from years of slouching behind the wheel of a tow truck and two days ago he pulled it loading an ancient copy machine into the van for a dump run.

He logs on to pick up his e-mail, and there it is in the New Domains mailing list, the latest draft—Postel's long-awaited plan to create more TLDs. The simple text scrolling up the screen belies its explosive content.

At press time, IANA's plan was to start charging in October for new TLDs: $2000 per name plus 2 percent of fees collected for domains registered under each TLD. Many of the ISPs on the New Domains mailing list think this high fee is outrageous. This will make having a presence on the Web pricier and skew it toward commercial enterprises with deeper pockets. Worse, there's no provision for a new non-profit area. When .org maxes out, any group that can't raise an extra $2,000 will be .sol.

They're also pissed off that, although there's been complaints that IANA moves too slowly, this draft omits the "request for comments" period. That period usually allows for open debate on Internet policy and procedural issues through papers and statements disseminated over the Internet.

By 9 a.m. the phone starts ringing; the calls will come in all day. Clients, friends, sys admins, all want to know what Kashpureff thinks. *Boardwatch* calls. *The Washington Post*. C/Net. Suddenly Kashpureff's a pundit. With this new move by IANA, the bad boy is starting to look like a visionary.

"It came as quite a shock that the system has been eliminated and we're going to do what Postel wants," says Tim Gibson, president of Fastlane.Net Ltd. of Ontario, Canada, a Web presence provider. "If Postel goes through with this, he's started IANA on the road to destruction...Eugene and myself have spent the last nine months locking horns on opinions...however, now, I see Eugene as the better option." Gibson's company still hopes to corner .art, .ent, .sky and .sex through IANA's registry. A man of his word, Gibson really did see Kashpureff as "the better option"—shortly after he was interviewed for this story, Gibson bought an interest in Kashpureff's company.

But don't think for a minute that Kashpureff is some kind of digital Robin Hood. All he really wants is in on the $10 million gross InterNIC stands to reap from registration fees in the new TLDs next year.

The InterNic/Alternic rivalry may be moot. Alternic is as eligible as any other company to apply to administer a new IANA TLD, and Kashpureff says that, when applications open, he'll be the first in line.

THE 'BOTS

But what about the killer 'bots? Kashpureff and Boling like to throw dark hints about revenge against various Internet enemies. But more and more it's Boling playing the role of evil twin, purring, "Maybe we should take down..." Kashpureff has started to play good guy, admonishing, "Now, Diane..."

Kashpureff says that he used to love spamming. "Just sitting around with a six-pack, then around 4 a.m., you hit the return button and wait for the calls from security bozos. There's a certain thrill to seeing 50,000 pieces of e-mail going out the door very efficiently."

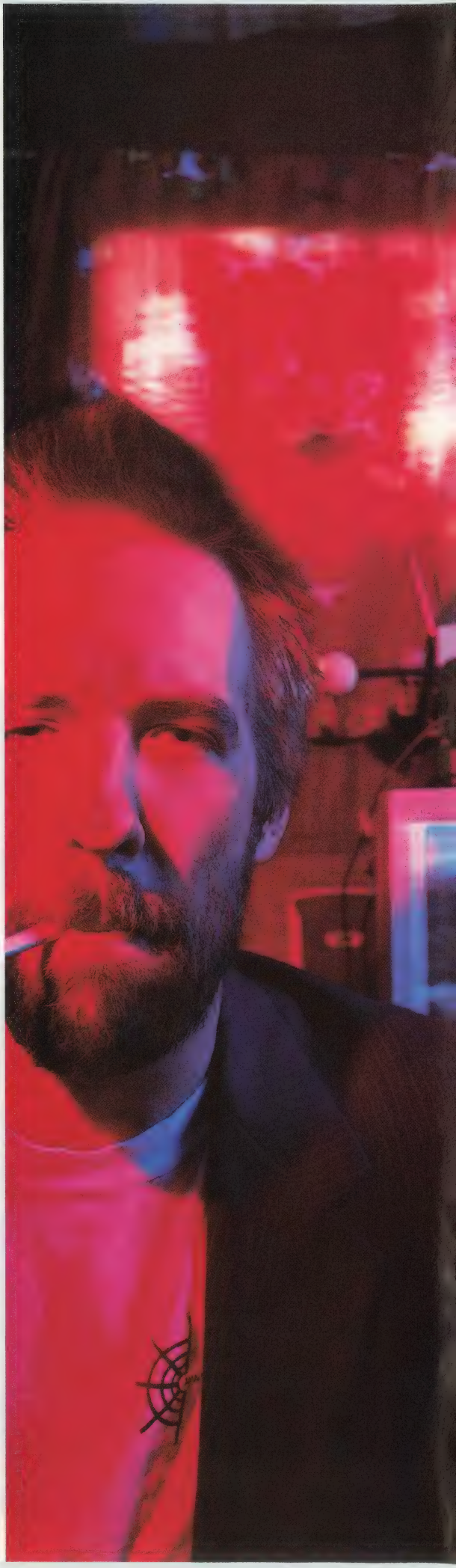
But his changing status in the Internet community, and perhaps just a little maturity, have made him think twice about being so offensive. In June, he attended his first Internet Engineering Task Force meeting in Montreal to discuss "unauthorized use of the Internet," i.e. spamming. After that, he promised, more to himself than to the group, to spam no more.

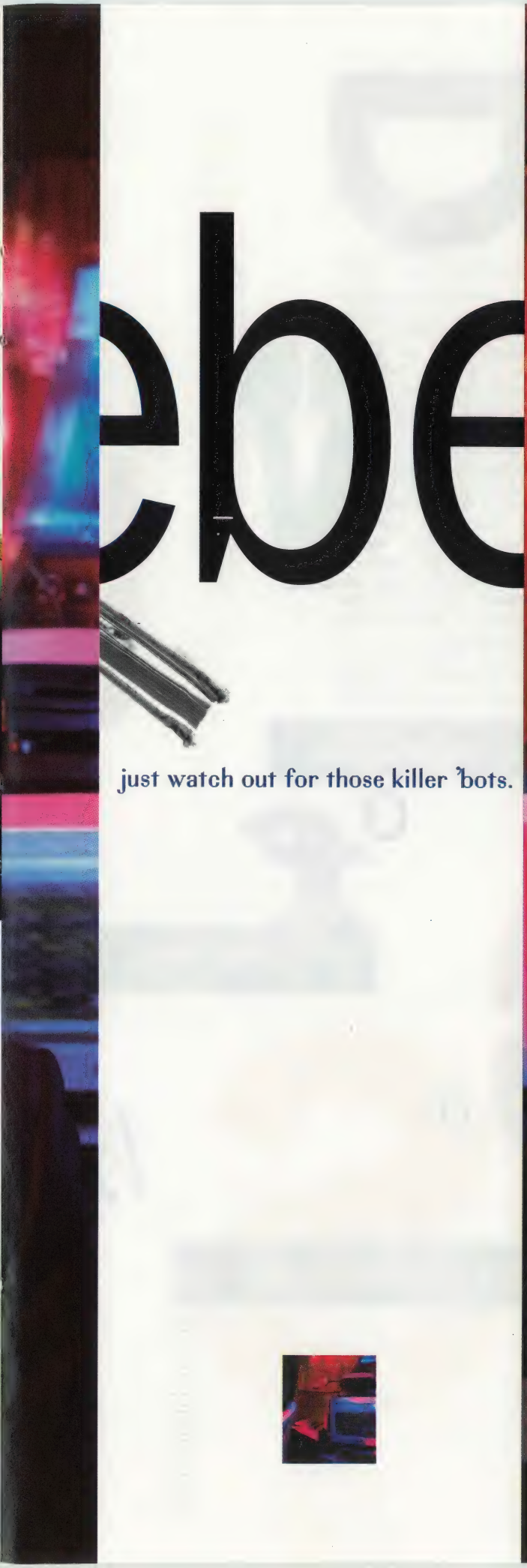
Kashpureff began his online career as an outsider, but it seems, after returning from the Task Force meeting, that there might be a place for him within the Net community after all.

"At first, I was a user. Then just another Net developer," he says. "There's this idea that coming forward with Alternic and taking a leadership position with other TLD operators, I had to become an example and a leader."

Kashpureff's immediate goals are to raise $10 million for Internet infrastructure, including dark fiber access for public use, and to find a Cub Scout troop for Eugene Jr. If he can't find a troop, he'll start one—he's been a Scout leader before, went through the training and everything. Raising the cash may not be as easy.

"He is scary. He's very intense and





ebe

just watch out for those killer 'bots.

because of that it's hard to read him sometimes," says Michael Laine, president of TEKnology-Laine, L.L.C. in Bremerton. Laine bought **www.yellowwweb.com** after an attempt to partner with Kashpureff fell through. "He can be a hard person to be around because his temper flares unexpectedly—but he's a genuinely nice guy."

Laine thinks that this temper, plus that in-your-face style, has been a deal-killer for Kashpureff more than once.

"We met in March 1996, and he's been in the same spot ever since," Laine says. "He's been in the position to make deals that for one reason or another, he was unable to fulfill." Laine adds that his own deal with Kashpureff was extremely hard to pull off.

"He's real talented, kind of kooky, but pretty good at what he's doing," Laine says. "He has enough good ideas out there that one of them has to work...[But] if he stays on his current path of professionalism, I question whether he's going to get there. If he can't let go of some of the control and accept what his skills truly are and what his weaknesses are, so he can move forward, he's going to be in bad shape."

Meals at the Kashpureff menage tend to be a bit disorganized. On this night, Eugene starts barbecuing steaks on the deck. The kids carry out plates and haul out the dining chairs. Sandy brings out potatoes and artichokes. Eugene and Diane wander downstairs to the computers. Forty-five minutes later the steaks are cooked hard and it's dark. We haul everything back inside, the kids run around, Sandy has already eaten. Dinner goes on till 10 p.m.

Afterward, we sit on the deck, watching the sun set over the cedars. In this mellow moment, he's let go of the anger that seems to drive him. Despite the pressures, the putative imminence of multi-million dollar deals with venture capitalists and a possible IPO next year, the future doesn't seem that different from the present for Kashpureff—or even the past. Although he dropped the tow truck business to concentrate on Alternic, it's still not out of his heart.

"No matter what," he says, "I want to keep on actually driving or fixing cars. Work can be an art form and I think it's good for you. I feel a reward for sitting down and hacking out some good code, but nothing like the feeling I had one Seattle snowstorm when I can't even remember how many sets of studded tires I installed. That's a heck of a day's work. Totally." O

Digital Cash

Three Rival Companies Compete To Separate You From Your Digital Money

By Simson Garfinkel

Art by Brian Rea

Yaro has found your wallet. David Chaum wants you to use his conditionally anonymous digital coins. And Lee Stein is developing a Java applet that will make spending your money as easy as clicking your mouse and typing your PIN.

Over the next year, these three men and their companies—Cybercash, DigiCash and First Virtual—hope to make it even easier for you to part with your hard-earned cash and to run up sky-high credit-card bills. They've all developed different and incompatible systems for sending money electronically over the Internet. They would like you to believe that digital money will have an Earth-shattering impact on the Internet's future.

What's confusing about these new payment systems is that even though they all call themselves "digital cash," they're all fundamentally different from one another. And all three are nothing like today's real-world cash. Is that a good thing?

CYBERCASH

CyberCash is perhaps the simplest system of them all. Started as a method for sending encrypted credit-card numbers across the Internet, CyberCash is evolving into a system that can handle small payments with virtual "coins" and perhaps checks as well. The CyberCash protocols are the basis of the SET protocols that are being developed by Visa, Mastercard and Netscape. Recently, CyberCash announced that its payment protocols would be

8 7 6 Ma 3 2 1
1 2 5 4 @ 6 7 8

Unlike other firms in the digital cash marketplace, CyberCash has published its protocols and is giving away its software in an effort to make its technology the Internet standard for payment processing. CyberCash plans to make its profits by charging other businesses for its payment processing services, much in the way that companies like First Data Corp. perform credit-card processing today. "We're not a software company; we're a services company," Yaro says.

Federal authorities should like the CyberCash system. Unlike the DigiCash system that was invented by mathematician David Chaum in the early '80s, CyberCash isn't anonymous. Even the CyberCoin, now in beta testing, is nothing more than a special kind of low-value credit-card where CyberCash plays the role of the bank. Yes, every transaction is encrypted, but CyberCash holds the keys necessary to decrypt them. Indeed, CyberCash tracks every single transaction that moves through its computer systems, giving you about as much anonymity as credit-cards do today: none.

"We don't want to run afoul of regulators," says Yaro. "While this [is] a little toy that a few people are messing around with, nobody is going to care." But CyberCash doesn't want to have the

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embedded in the Java environment. There are even plans for supporting some kind of CyberCash wallet directly in popular Web browsers.

One thing that's attractive about the CyberCash system to users is that it is a single system for handling a multitude of different payments. "Our business is basically to try to bring to the virtual world all of the different payment options that you and I use in the physical world," says Denis Yaro, CyberCash's executive vice president of products and operations. "There are very good reasons why sometimes you use a credit-card, cash and sometimes write a check."

Today you can use the CyberCash system by clicking into the company's home page (**http://www.cybercash.com**) and downloading a copy of its Wallet Application. The program creates a set of RSA keys—one public and one secret—which it stores encrypted on your hard disk and on a floppy disk that you provide. You then type in your credit-card numbers, storing them in an encrypted file on your system. When you click on a link to buy something, the Wallet automatically comes to the foreground and asks you which credit-card you want to use. Click it, verify the amount, and your money automatically gets whisked away.

2

rug pulled out from under them once the amount of money moving over the Internet is large enough to worry about. Yaro says that regulars consulted by CyberCash say that its money must be traceable.

After all, paper currency is certainly traceable: It's covered with serial numbers. Deposit $10,000 or more in your bank account, and your bank will fill out a Cash Transaction Report and send it to the feds. Get caught trying to take more than $5,000 in or out of the country without telling your friendly Customs agent and you'll be arrested for smuggling. Cash is even bad for blackmail: Every piece of cash has a unique serial number, making it traceable. And then, there's always the chance that your bag of money will have a dye-bomb in it, ruining the currency and turning your face purple.

Digital Cash doesn't have to have any of those problems and that's what is scaring the Feds. They say that a digital cash system that was truly anonymous and truly untraceable would be a perfect tool to commit the perfect crime. And people in the White House, the FBI, the IRS and the Treasury Department are determined not to let that happen.

ECASH

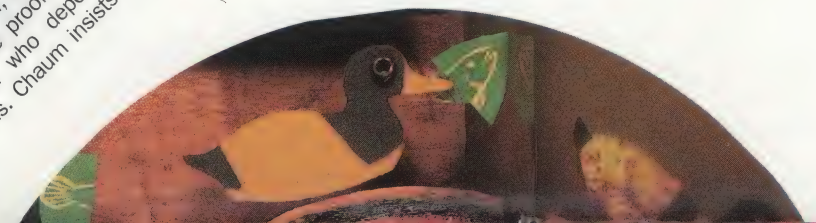
Digital cash visionary David Chaum says that that continuing attention to digital cash black markets is "misleading, misguided and...dangerous." Focusing on the possible dangers of digital cash, Chaum says, makes it less and less likely that a digital cash system that allows "conditional payer anonymity" will be adopted. Chaum is worried that such a system might be a prerequisite for democracy in the 21st century.

Chaum is passionate on the subject of conditional payer anonymity—something that he also calls "one-way privacy." If you buy something with Chaum's Ecash system, the merchant you buy it from can't figure out who you are: Your identity is mathematically protected by Chaum's patented algorithms. As the buyer, on the other hand, you get certifiable proof of the identity of the person who deposits your electronic coins. Chaum insists that this property of his system makes it totally unsuitable for the black crafts: Drug dealers do not want their customers to have proof of the dealer's identity. Buyers, on the other hand, mathematically surrender their identity if they try to spend the same digital coin twice.

Why the emphasis on privacy? Because Chaum envisions a future in which people buy things not by monthly or yearly subscriptions, but as a series of micropayments. Think of it as the difference between a prix fixe meal and eating at a cafeteria. Some day in the future, you may click into an electronic version of *Internet Underground* and be charged a penny or two for each article that you read. But unless you are using Chaum's system of digital money, Big Brother will be able to assemble your reading list and use it against you.

Perhaps so. Critics point out that most things that people buy in the marketplace—things like T-shirts and fruit baskets—can't be delivered anonymously. And if Big Brother wants your reading list, he's not going to spy on your cash transactions: He's going to look at the log files of the Web sites that you're clicking into. Chaum's greatest critics say that the good doctor simply figured out a way to patent some nifty technology back in the '80s and has been trying to make a buck on it ever since.

More telling are the banks and merchants backing DigiCash. Already several major banks in Europe have signed on, allowing their customers to easily set up Ecash accounts. On the other hand, the only bank in the



United States that's issuing Ecash right now is the Mark Twain Bank (**http://www.marktwain.com**). In order to create your account, you have to answer more than four screenfulls of personal questions. Sure, all banks ask for your name, address, Social Security number and date of birth, but only the Mark Twain Bank wants to know your driver's license number, your passport number and the name of your employer before they'll go ahead and let you spend your money. Once you've created your Ecash account, you pay $1 to $3 each time you want to deposit money into it, and a 4 percent to 5 percent fee to get your money out. That's substantially more expensive than credit-cards.

Perhaps Americans don't care about their privacy after all.

FIRST VIRTUAL

First Virtual Holdings was the first company to market with an Internet-based payment system, and in many ways, they are the most successful. These days, it's hard to click into a sexually oriented site on the World Wide Web and not be prompted for your VirtualPIN, the code that the First Virtual system uses to authorize payments. But the VirtualPIN is for more than porn: First Virtual's Web site lists merchants that accept the VirtualPIN for books, software, newsletters and photographs, all delivered electronically. When Apple Computer released QuickTime for Windows, it allowed people to pay for the program using First Virtual. Phil Zimmermann, author of the crypto program PGP, used First Virtual to allow people to contribute money to his legal defense fund.

But what's really exciting about First Virtual's system, says Lee Stein, the company's president, is that it doesn't require people to install or use complicated cryptographic software on their PCs. That's because VirtualPIN doesn't use encryption.

Stein insists that the lack of encryption is more than just a gimmick: It's a positive feature. Stein thinks that the mixture of credit-card numbers and personal computers is positively explosive. And he's developed a program called Card Shark to prove it. The program, which poses as a screen saver, silently scans a user's keyboard until a string of numbers that ends with a credit-card check digit is typed. It then plays an ominous piece of music and pops a window up on a user's screen, telling the user that they've been sharked. The only way to prevent this attack, Stein says, was to use a secure operating system (none are available for PCs) or to keep credit-cards off PCs.

First Virtual chose the second route. To get a VirtualPIN, a consumer sends electronic mail to info@fv.com or connects to First Virtual's Web server at **http://www.fv.com/**. The user fills out an application, giving First Virtual their name, an electronic mailbox at which they can be contacted and an identification ID—either a word or a phrase. First Virtual's computers then process the form and send the user back an electronic mail message containing their VirtualPIN, which is their ID proceeded by a four-letter word—a 12-digit application number and an 800-number. The user then calls the 800-number with a touch-tone phone, types in their 12-digit application number and then types in their credit-card number and expiration date. Within a few minutes, the consumer gets another e-mail message saying that the VirtualPIN has been activated.

When the consumer wishes to buy something with their VirtualPIN, they send the PIN to the merchant. The merchant then sends a message to First Virtual, asking if the PIN is valid. At this point, First Virtual sends an electronic mail message asking the consumer to authorize the transaction. The consumer responds to the e-mail message with a single word: "YES," "NO" or "FRAUD."

If the user responds "YES," First Virtual sends e-mail to the merchant, authorizing the transaction. If the user responds "NO," First Virtual tells the merchant that the transaction has been declined. And if the user types "FRAUD," First Virtual marks the transaction for investigation. If the company determines that a user's VirtualPIN has been stolen, it will cancel the PIN and issue a new one. Because it is based entirely on electronic mail, First Virtual is open to millions of people who do not have access to the World

Wide Web but can still send e-mail, Stein says. Furthermore, the system is international: First Virtual's first customer actually signed up from Dublin, Ireland. The following customers came from Helsinki, Mountain View, Calif., Cambridge, Mass., and then Dallas.

So what makes the VirtualPIN secure? The fact that spoofing the system requires intercepting e-mail at two different locations, usually on two wildly different e-mail systems. Sure, says Stein, there may be instances where sophisticated Internet attackers can cause one or two payments to be falsely issued. But it will be difficult to conduct a systematic scheme to defraud the company.

For both merchants and consumers, First Virtual's costs are low—in some cases, dramatically lower than traditional credit-cards. First Virtual charges consumers a one-time fee of $2 to set up their account. Sellers get charged $10 to set up their account, plus a transaction fee of 29 cents plus 2 percent of the transaction price. By comparison, banks can charge merchants as much as $1,000 to set up a merchant account, and transaction premiums from 2 to 5 percent.

Perhaps an even bigger difference between First Virtual and banks is that First Virtual does not require a background check on its merchants before they can receive money. That's because First Virtual does not give the merchant their money until 90 days after the transaction is made—the legal time limit for reversing credit-card charges. "[We] didn't want to draw a line between those who were credit-scored and those who were not," says Stein. "At this point in history, most of the people who are in the Internet would not be able to walk into a bank and get a merchant account to sell things."

But anybody with $10 and a credit-card can get a First Virtual merchant account.

For its first year of operation, First Virtual only allowed its system to be used for "virtual goods"—that is, for data. The reason was security: If First Virtual, the merchant, or the customer screwed up, the worst thing that would happen is that the customer would have their credit-card refunded and the merchant would lose a sale. But there wouldn't be any merchandise that had to be returned.

Earlier this year, First Virtual brought out version 2.0 of its system. The big change, says Stein, was the adoption of digital signatures to let merchants verify that the messages from First Virtual's computers were actually sent by First Virtual's computers, and not by an impostor. The system is now safe enough that First Virtual feels safe authorizing it for the sale of real goods as well. (Don't tell Lee, but people were buying and selling hard-goods with First Virtual long before they were authorized to do so.) Even better, merchants who are willing to submit to a credit check can now get their money the next day, rather than waiting for three months.

This fall, First Virtual will be rolling out a new Java applet that will make it even easier to spend your First Virtual money. The applet will display itself as a typical Internet banner advertisement, but when you click on it a tiny window will pop up and ask for your VirtualPIN. Type it in, click OK, and you've spent your money.

Why does any of this matter? Isn't one kind of money the same as any other? Aren't they all interchangeable?

The answer, in a word, is "no." As the Mark Twain Bank demonstrates so clearly, a lot of businesses are seeing the move to digital currency as an opportunity to rewrite the contract that's been developing over the last 500 years between banks and their depositors. No bank on the planet that's not affiliated with the mob charges you 4 percent to withdraw your money from a checking account. But Mark Twain does. Likewise, no credit-card processing house other than First Virtual has ever even suggested to its merchants that they wait three months before getting their money.

For consumers, though, the biggest change that's coming with digital money is the increased surveillance of their purchases. Sure, every dollar bill in your pocket may have a serial number on it, but nobody is actually looking at them with any regularity. The only time that I notice them is when I see consecutive serial numbers in the money that comes out of my ATM machine. Anybody running a digital cash system, though, is going to be in an ideal position of not merely handing out consecutively numbered digital coins, but videotaping them as they move around the world.

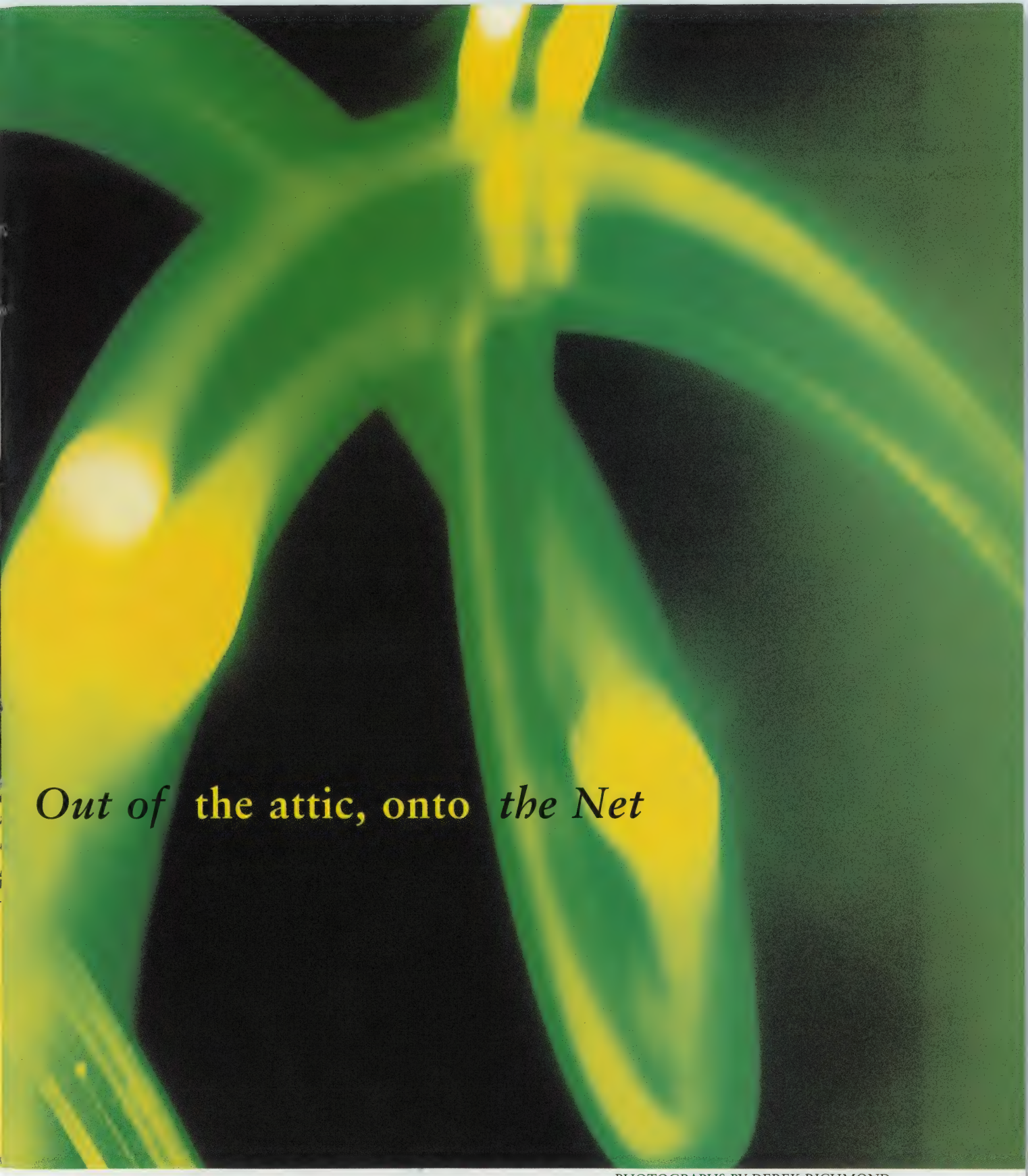
That's the real difference.

TOY STORY

The toys waited out the decade in a forgotten room.

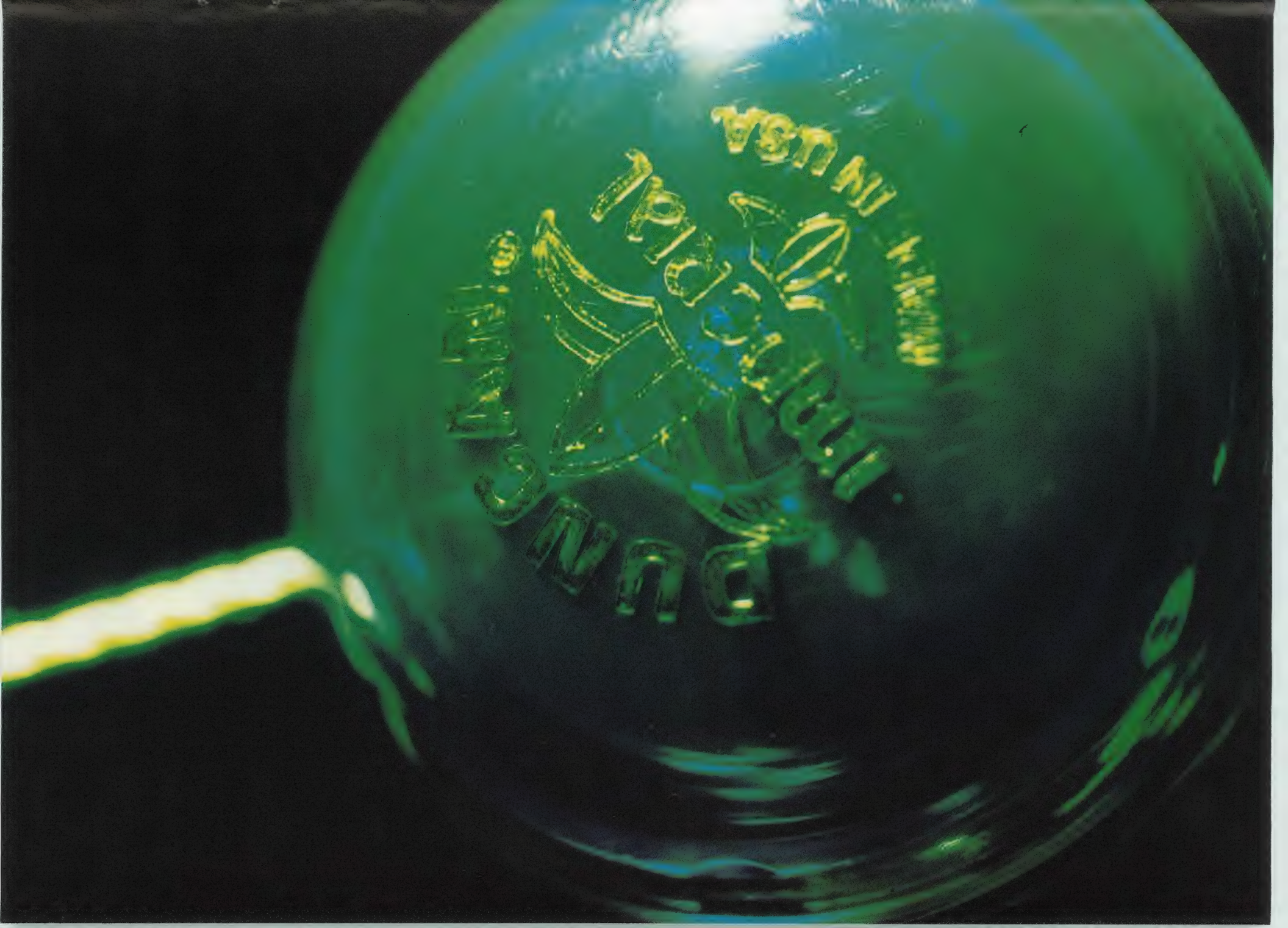
They lived in a store called The White Elephant. It's the kind of place that never rotates its inventory off the shelves. Toys from decades past are still sitting in their rightful places, sporting their original prices. Sometimes, a door disappears behind a messy pile of boxes, and a storeroom is forgotten for years. By the time a clerk glances at the blueprints and opens it back up, it's a grown-up's Christmas, the secret dream of every toy collector—a forgotten vault from another era.

BY SARAH ELLERMAN



Out of the attic, onto *the Net*

PHOTOGRAPHS BY DEREK RICHMOND


Made in Brazil

"On the Internet, you're apt to bump into somebody with the same weirdo interest as you."

—LEGO COLLECTOR SUZANNE RICH

It was at the White Elephant that Pam Green stumbled onto a collection of punk-rock Jem dolls. Green, a money-conscious student at the time, was impressed by the fact that the proprietors were selling off the campy divas for ten bucks apiece, when collectors were willing to pay between $20 and $40 for a doll. To this day, she's never sold any of that day's find, but was pleased to be able to start off her toy collecting so affordably. Now Green is in the full swing of the hobby—author of a Web page (**http://weber.u.washington.edu/~pkgreen/pamstoys.html**) and a participant in that ever changing worldwide conversation better known as the Usenet newsgroups.

"Usenet is the heart of the toy-collecting community online," says Eric G. Myers, creator of a Web site called Raving Toy Maniac (**http://www.mdacc.tmc.edu/~neuro/eric/rtm/rtm.html**). He believes this wholeheartedly. Although Web pages have transformed the collector's world, the sites can suffer from being static and one-sided. It's in newsgroups such as **rec.toys.misc** and **rec.toys.action-figures** (which Myers helped develop) that the essentials of the hobby take place—gossip, trading, support and admiration. "The whole hobby is experiencing a real boom right now," Myers says. "The explosion of sites related to action figures and toys in general is just incredible, and I think it's been over the last year that that's really bloomed."

FALLING IN LOVE

To the toy connoisseur, the choice of toy is nearly as personal and important as one's life work or spouse. Thousands of dollars and hundreds of hours are spent on these playthings. How do people meet and fall in love with "their" toys?

An unwary Suzanne Rich was led into an addictive LEGO habit when she found out that a train set she liked was going to be discontinued. "I was just terrified that I wasn't going to be able to get this set, so that collector instinct came out. I bought that train set, and that was it: It was like an *avalanche* after that." Rich, author of Suzanne's LEGOphile Homepage (**http://sebago.internet.com/~srich/**), owns about 200 sets, which adds up to about 22,000 pieces. "Now that I have a real job," she explains, "I'm able to buy all the toys that I wanted as a kid."

Action Girl's Guide to Female Action Figures (**http://members.aol.com/sarahdyer/index.htm**) is penned by Sarah Dyer, a comic artist. Her site is a vast encyclopedia of female figures such as Catwoman, *Star Trek*'s Tasha Yar and *ReBoot*'s Dot Matrix. Her hobby is a logical extension of her comic, *Action Girl*. "I'm not really a comics collector, and I don't read a lot of comics, especially modern comics," Dyer says. "But I started collecting the old *Supergirl* and *Wonder Woman* and then weird characters that were girls." Her specialty leapfrogged from there.

David Hall, who runs Dave's Wonderful World of Yo-Yos, (**http://www.nmia.com/~whistler/yo-yos.html**) says the Smothers Brothers sparked his lifelong fascination with yo-yos. "The geometry and the dynamics of the yo-yo, it's such a complicated thing, and yet it's so simple," Hall rhapsodizes. "I mean, you can see a piece of string attached to a piece of wood and it spins. It's so simple that you can't even mathematically precisely determine what's going on, but you get a sixth sense about it."

One thing is indisputable—the super-kitschy decades of times past inspire the avid toy collector. Green's fetish for the pink-haired, fishnet-stockinged Jem stems from the fact that "in a way, Barbie could never capture this period of the '80s. Jem dolls have these weird funky clothes." Barbie projects a more sanitized and timeless image. Similarly, Adam Tyner's interest in He-Man action figures (**http://www.awod.com/gallery/rwav/ctyner/he-mant.html**) is borne of nostalgia for his childhood in the decade of the Masters of the Universe. However, Dyer finds her inspiration in another timeline. "I find that the comics coming out now—they have nothing to offer me. There's nothing in them that I'm interested in, but I went back and found comics made before I was even reading them, mostly '60s comics, and I just really enjoy them."

These collectors are serious about what they do. They work hard to track down rare models, write extensive catalogs, fact-check and photograph. Do they ever find time to play? To Hall, the yo-yo is "more than just a toy, it's an entire hobby. It's a toy in that I buy the new ones, and I play with them, I can do almost all the advanced tricks. It's very recreational and great for relaxation. But at the same time it's intellectually stimulating trying to find avenues of finding more for the collection."

THE NET CONNECTION

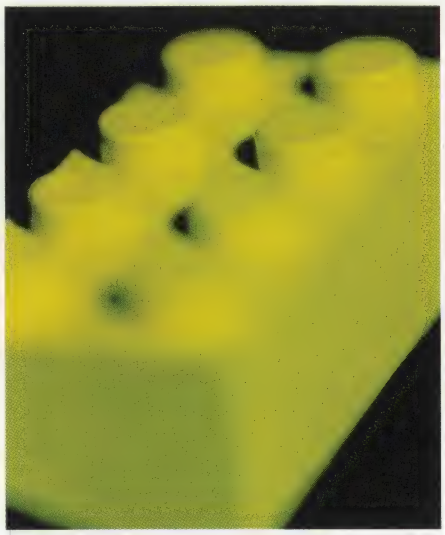
Rich's favorite pastime with LEGO is piecing together sets and scenarios that LEGO doesn't officially make, such as an intricate chessboard. She finds that her cohorts on the Net egg her on. "It's really fun when people see [the creations], and they write to you and say, 'Oh, I really like the way you used that piece,' and they actually *know* that piece pretty well," she laughs. "It's neat, because a lot of people in the physical world around me have no clue why I do this, or don't know anything about LEGO, or aren't really interested, but on the Internet, you're apt to bump into somebody with the same weirdo interest as you."

Dave Hall uses the Net to keep in touch with a group of yo-yo fanatics. "It's really important to [compare notes] because a lot of these companies, like the old Duncan company, didn't keep very accurate records of exactly what they made or when they made it." One of Hall's goals is to fill in gaps in the historical timeline and record stories of yo-yo culture. For her part, Jem collector Green actually says that her collecting habits have changed because of her Web page. Now she says she often thinks of her Web site first and her collection second when coming upon newly discovered dolls and accessories. The possibility of communication, of dialogue, has transformed a hobby that can lean toward the self-indulgent into a kind of education. For instance, Tyner scoured DejaNews to find everyone who had ever written a word about He-Man. "I compiled a list," says Tyner. "It started out with 12 names, and now there are over 250 people who get my newsletter. It was one or two in the morning on winter vacation. I'm not sure why I did it, it seems odd now, but I'm glad I did." His site thrives due to this tight community of He-Man fans. Myers echoes these themes of sharing and community-building. "In terms of bringing us together as individuals that are sharing a love for these things," he says, "the Internet has become the medium of choice. I can't think of how I would do this and get as much enjoyment out of it if I didn't have the Internet, the Web pages, and especially, primarily, the Usenet newsgroups."

FOR LOVE OR MONEY?

The hobby has long felt the schism between those who collect for love and those who do it for money. "Unfortunately, now, we're seeing an invasion of people who are really into speculating," Myers says. "The popular term for them is 'scalpers.'" Scalpers make it their business to buy up hot or short-packed items. They then resell them immediately at inflated prices. This practice is easily the most inflammatory debate in the community, because scalping is highly visible when dealers post unreasonable prices in the newsgroups.

"If you want to make an investment, go buy stocks and bonds," Myers sighs. "The toy market is right on the brink of a major correction." He explains that toys are being hyped and marketed using many of the methods of the now-collapsed comics industry. "The problem with toys is that you can take a toy *back*. You can take it back, and get your money back, or get a credit at the store. Try doing that with a comic or an open pack of trading cards. You can't do it. So until stores are really willing to address their return policies, the action figure and toy speculation market will continue because it's really a very low-risk venture." Sure, everyone's heard the stories about people who socked away the *Star Wars* line in 1979 and made a mint. But because of those very stories, Myers says, "every action figure released in the last five years will be in very good supply in the coming years. In great condition, too." His ultimate advice is, "If you stick with what you like, you can't go wrong. If you're chasing the latest trend, you're more than likely going to wind up with a worthless piece of plastic that you're going to try to sell in a year."



Dyer agrees that people should remember the inherent joy and fun in toys. She keeps her "girl army" spread out around her office and rearranges them when she's bored. "I'm definitely not one of those people who is collecting for value and keeping them on the card and everything," she says.

The overriding feeling permeating the toy pages is one of good karma and a refreshingly innocent set of ethics. "It's all right to not make a profit. It's all right to just collect and trade and not rip people off. It's all right to help people out," Myers says. "If I had to make a slogan for the newsgroup, it would be, *This can be a collaborative and cooperative venture if you want it to be.*"

"The explosion of sites related to action figures and toys in general is just incredible, and I think it's been over the last year that that's really bloomed."

—Eric Myers, Raving Toy Maniac

403 FORBIDDEN

by Carolyn Meinel

THE HAPPY HACKER

EDUCATES THE CURIOUS

Hacking Can Be A Healthy Hobby

Hacking. It's the biggest, greatest, most powerful game currently being played, or waged, on our planet.

Hacking. It's played on millions of computers. It's free. It's phun. The stakes are high. Succeed and you can enjoy a six-figure income for the rest of your life. Fail, and go directly to jail without passing Go.

Who are hackers? I can't vouch for the stereotype, but to me, they're friends, my daughters—and me, a 50-year-old lady, and keeper of the Happy Hacker e-mail discussion list.

Give me just half-an-hour of your time and I'll show you how to do hacks that'll amaze your friends. Give me a few days of your time and I'll propel you to the top 5 percent of hackerdom.

Why do I teach it?

I'm bothered by the fact that the majority of so-called hackers are actually just people who own copies of "exploit script" software that does most of the work for them. Much of the hacker community is little more than *doodz* who hang out and swap software. In fact, most of those who get arrested do so by abusing such software.

And then there are the real hackers, the elite who actually discover the hacks. They're the ones who write the "exploit scripts" that wanna-bes long to possess...and often abuse.

Now, I'm not claiming to be among the elite. But I do know the essentials and can hack straight from the keyboard.

What kinds of things can you learn from The Happy Hacker? We teach the basics.

Telnet to temptation. It's the basic command that can get you into almost any computer on the Internet. Surf the "daemons" running on Internet host ports. Meet sendmail, the most hackable and ubiquitous daemon on the Internet. Create fake e-mail and Usenet posts. Zap those spammers with a cornucopia of vigilante tactics. Take down Web sites that you believe have gone way the heck over the edge.

How do people feel about my work?

Some hackers hate it. Some accuse me of being a "narc," an undercover agent trying to bust computer criminals. Within days of launching The Happy Hacker in fact, someone cracked into one of my accounts and sent out hundreds of obscene e-mails under my name.

The owner of the Internet Service Provider that used to host my business Web site, **http://techbroker.com**, also had a fit when I first introduced him to The Happy Hacker list. I cannot repeat his comments here, gentle reader, lest the paper on which this is printed burst into flames. His argument was "the less people know how to hack, the better."

But that's not to say that all ISPs hate our work. Some love it. The Happy Hacker mailing list is hosted free of charge as a public service by the EDM Network, an Internet Service Provider in Irvine, Calif. (see **http://www.edm.net/**). They believe that people, particularly sysops and other Net-related personnel, can do a better job running networks (and keeping malicious computer vandals on ice) if they have a better understanding of how hacking works.

Both computer animation researcher Dean Garlick of Utah State University's Space Dynamics Lab and computer crime detective Ira Winkler of the National Computer Security Association approve of The Happy Hacker list. In fact, they have joined with us in a project to expand it into "hack.net."

Hack.net will offer a computer game that Garlick is creating, simply called "The Hacker Game." Using exciting graphics, it will provide young people, who have grown beyond the computer training that their schools have offered, a safe and legal way to learn about hacking.

For the advanced player, Winkler plans to organize a network of real Internet hosts that will exist as a fair, legal game for any kind of hack players can dream up. It would also offer online tutorials and one-on-one assistance to players to improve their talents. Players who finesse especially sophisticated attacks—or who devise new ways of warding off attacks—will have opportunities to win scholarships and cash prizes.

Do we want young people to learn hacking in the back alleys of the Web? Do we want middle school kids playing with exploit scripts given to them by criminals? Of course not.

Instead, through hack.net, kids can learn hacker honor and develop skills they can apply to becoming computer science researchers, system administrators and computer security experts. Kewl. Thinking about things in this way is what makes me a Happy Hacker.

CHECK OUT CAROLYN MEINEL'S HAPPY HACKER ARCHIVE AT **HTTP://WWW.FEIST.COM/~TQDB/EVIS-UNV.HTML**, OR GET ON THE HAPPY HACKER LIST BY E-MAILING MAJORDOMO@EDM.NET WITH THE MESSAGE "SUBSCRIBE HAPPY HACKER."

You either love them or you've never heard of them. They have pioneered the art of sound appropriation and "recontextualizing" for the purpose of creating unique audio collages. In 1988, they managed to tour the world without leaving home via a device of their own creation that allowed them to transmit live broadcasts over phone lines, dubbing it their Teletour.

Even though Negativland has been around for nearly two decades, it wasn't until 1991 that they garnered any mainstream attention. That year the band released their "U2" single, a wicked parody of the blarney band's song, "I Still Haven't Found What I'm Looking For" mixed with sound clips of a cursin' Casey Kasem. What followed was a flurry of legal attention from Island Records, U2's label, and sporadic reporting of the facts by the music and pop-culture press. Negativland went on to document their legal and financial woes in an independent zine and CD called *The Letter U And The Numeral 2*. This resulted in a lawsuit by Gregg Ginn, owner of SST records, Negativland's then-record label. The entire story can and should be read in all its brutal, hilarious and outrageous detail in the book *Fair Use: The Story Of The Letter U And The Numeral 2*, which also includes a bonus CD with a prime example of Negativland's craftwork.

all images used without permission of Negativland

by Pat Sandberg

ON the Net with NEGATIVLAND

Today, the sonic outlaws continue their struggle against mediocrity and the oppressively outdated U.S. copyright laws at NegativWorldWideWebLand (**http://www.creative.net/~phlen/virus/sites/negwwwland/index.html**). There, users can find a Negativland discography and ordering information as well as links to sites regarding copyright law and free legal representation for artists. *IU* recently caught up with Negativland's Mark Hossler to discuss the band's and his opinions of the Internet, intellectual property laws and computer frustrations.

***Internet Underground*:** In the past, you've appropriated samples from television, radio, movies, popular music and various other sources...

Mark Hossler: Answering machines...

***IU*:** Yes, of course! Do you see any new opportunities for appropriation with the Internet?

MH: Well, you know, we were just down in Los Angeles—we were artists in residence at a summer school for the arts for high school students. ...There was a classroom where they were learning about how to do digital imaging and learning about the Internet and basically the assignment was that they were supposed to put together some kind of a visual collage based on images that they could grab from the Internet. What they were making was kind of an original piece of collage art but it was made entirely from snips, you know, snipped little chunks and manipulated images of things that they grabbed from Web sites all over the world. It was sort of jaw-dropping to me because I'm 34 years old and I'm thinking, 'Here's this 15-year-old kid and this is how he's being introduced to this technology.' You can find all this stuff, but you can just go grab anything you want and you can do anything you want with it. This was a very interesting thing—this was a state-funded school and they were letting Negativland come in. ...I told them before we went down, I said, 'You realize that what we're going to tell your students are things that are on the questionable side of the law.' It isn't necessarily even legal what we're telling kids to do...and they were all for it.

***IU*:** And you don't have to pay royalties on the Internet.

MH: And it's just out there and it's just this totally plastic, infinitely reusable, recopiable, new medium. You can do anything you want with it. And I thought, that is part of how this kid is getting his worldview, his sort of technological and aesthetic worldview is being formed by this. Now when I was that age we didn't have that. What does this mean when thousands and thousands and thousands of these kids grow up and this is what they grew up with as normal? And it doesn't matter what the laws say. I don't care, regardless of what the laws tell you, you can do this—the technology allows you to do this. When you have all these links to other people's sites you can be grabbing information from some site to use on your site because it's appropriate, because it supports something you're talking about. Or you can link to something else and there is a way in which it is kind of this giant sort of collage you're making.

***IU*:** Do you have any impressions of how the Internet is going to impact U.S. copyright laws?

MH: It seems to me that it is certainly prompting multinational, corporate-cultural producers to swoop down and try to make sure that they can keep the Internet working the way they're used to the copyright laws working for the last 100 years. I know there's been some white papers circulating around D.C.

***IU*:** I followed [the link at your site] to the National Information Infrastructure (**http://www.uspto.gov/web/ipnii/**).

MH: That stuff is like, 'Oh my God! Are these people insane? What are they thinking?' I think what they want to do is they want to make the [Service Provider] liable for any infringement that happens on their servers, which means that the only service providers that can afford to stay in business would be the ones that can take the risk. They'd also end up having these really stringent and draconian laws to scare the hell out of all of their users. Then you'd have only the big people, only America Online would be able to be out there...the little guys would dry up.

***IU*:** Just the people with corporate backing?

MH: Yeah. Of course what we hopefully all know is that the biggest service providers, they have all kinds of censoring limitations on what you can and cannot talk about. I've talked to people who've tried really hard to find all that horrible pornography [on the Net]...all they've ever been able to come up with was a bunch of stuff from *Playboy* magazine.

***IU*:** My most recent [Negativland] purchase was *Over The Edge, Vol. 2: Pastor Dick: Muriel's Purse Fund* and I thought it had a hilarious satire of the Jack Chick religious tracts.

MH: Yes, we worked very hard on that!

***IU*:** I loved that! Have you considered doing a spoof Web site along those lines?

MH: There's a lot of things we've talked about doing on the Internet but the problem is we have no resources. All we have are volunteers and when you have volunteers it's always hard to get them to do anything because everyone does it in their spare time. If we had a bunch of money, if everyone who read about the Negativland *vs.* U2 lawsuit actually bought one of our records then maybe we could do something. We don't have the money to throw at things like that so we put our energy and time into things that we think we can at least break even on, like putting out a CD. We have sat around and talked about lots of different ideas like that and talked about software programs we would like to have written to do different things on our site. But trying to get somebody to do it, to take the time, it's like a full-time job. I could imagine another type of group (there probably already are some out there) but I could imagine another type of band where one member of the band, his thing is he's the Internet guy. He oversees the whole Internet thing.

IU: Which of the members of Negativland have an interest in or knowledge of the Internet?
MH: I guess really, me and Chris (Grigg) and Don (Joyce) probably more than anybody. I mean, I don't even have a way to look at Web sites on my own computer. I didn't even get e-mail until less than a year ago. My feeling was anything that's this hyped I just have an automatic aversion to. I'm being hyped and told by everyone around me and all the media that you gotta have this thing and immediately my contrariness comes up. I don't want that. I have more than enough things to deal with just dealing with the mail in my mailbox and my answering machine and trying to do Negativland and run our record label. I just said, 'Great, that's just what I need is hundreds of more messages and ways for people to get to me.'

IU: Now that you have e-mail or now that Negativland in general has e-mail, what kind of responses have you gotten to your Web site?
MH: Oh, well the Web site's been up for a while. We have this because the good folks at Sunsite at the University of North Carolina donated the space to us. There is no way in hell Negativland could afford the computers, the disk space, all that stuff to have our own site—there's no way it could happen. We worked at kind of architecting what the site would be like and one of the reasons we were given the site was that the folks there felt that 'Here, let's hand Negativland this new medium to work in and given the way that Negativland's brains work, they'll probably come up, over time, with some kooky, interesting, fun things to do with it...'

IU: Your site definitely seems to be one of the cleanest and it gets right to the point—there doesn't seem to be a lot of fluff.
MH: We've had lots of compliments on the site and to be honest, I don't think we have a particularly great site. I think all it means is that most sites are so shitty. ...It's just my feeling about computers in general that computers are *a tool*! However, the way computers are sold to the American public through all of those magazines, probably like yours and *Wired*, and through all of those companies that make all the computers, is that it is sort of sold like it's *the tool*. It's *the thing*, it's the thing you gotta have and it's not. It's just *a* tool. So since I got e-mail, I've been sort of taking it very slowly. I just want it to be this little thing I have that I can use, that's useful for certain types of communication. I have a Mac SE. It's about nine years old. I was amazed at how difficult it was to get on the Internet. It was just unbelievably stupid and cumbersome and ridiculous. I couldn't make anything work on the computer that I have because it was too old. I was running into the fact that the computer industry is the ultimate in planned obsolescence because it's just constantly out-moding itself every six months to the point where, gee, I can't even get on the Internet with this Mac SE because I can't get my Internet starter kit software to even read inside my computer because it's the wrong size disk drive...

IU: Technology is definitely not kind to people who haven't kept current.
MH: Which again, is this kind of economic, exclusionary thing. Nowadays, people do ask me advice sometimes

about computers because they seem to think Negativland is somehow really techno-savvy. And I'll say, if you want to do some kind of sound-editing stuff or some graphics, look for a used Mac IIci. You can get them for like $1,000 and they're just fantastic. They're totally great. They'll do everything you want; just get something old and don't worry about the new thing.

IU: With advances in broadcast technology on the Internet, do you think that Negativland will start distributing recordings over the Web?
MH: Well I find that currently, there is a lot of hype and brouhaha over the RealAudio stuff and I think it's a very nice idea but, again, it is all just a total bunch of shit! It is a bunch of bullshit, it is all hype! Basically, I worked very hard with my friends to make these amazing-sounding stereo recordings in full fidelity and to have it come over in mono and sounding like a good AM radio is not my idea of a good way...it's interesting but it's not my ideal way, not by a longshot. On the other hand, if I was taking something where I intended it, from the beginning, from the very get-go, you create the work so that part of the aesthetic is that it has this certain limited, lo-fi sound quality, then that's different. We do have this serialized novel that we're going to be putting up in the next couple of months, a chapter a month, on our site and there will be these buttons you can push to get RealAudio out of some sounds that go with it. We know that they're not going to sound perfect, but we sort of know that going in.

IU: Which brings us back around to the whole thing about staying ahead of the curve and having the latest version of the software.
MH: I have no interest in staying ahead of any curve in terms of technology. I have an interest in staying "ahead" of ideas. What Negativland has always been interested in and excited by is the idea—the cool idea, the weird, confusing, strange, perhaps subversive idea. That's what we're really concerned about. I'm also trying to reconcile myself to the fact that I grew up in a certain era and there are certain things I understand better. I have a certain way of working where I can work pretty fast in the studio using a certain level of technology, but if you suddenly tell me to start running an automated mix-down software program, I'm going to get all mixed up. I'm not going to get anything done. Right now, our studio is made up of separate components but it's obvious that what's starting to happen now and will increasingly happen, is you're going to have something that's going to be a recording unit, a mixer, a mix-down thing and your effects all in one box.

IU: Absolutely.
MH: I could see that handwriting on the wall a few years ago. That was obvious they were going to do it. It was really silly that computers didn't have modems in them. Why do you have to go out and buy one—why aren't they built in? Well, it took a little while but now they do that. I'll probably keep working with what I've got. It's what I'm familiar with and it sounds pretty darn good.

FAQ: Rappin' with Molecular Mix-Master Dr. Dre'

by Lauren Gonzalez

It doesn't take a great mind to keep up with what's happening in the world today. You just need the motivation to read, watch television or access the Internet to stay abreast of the latest trends, whether in fashion, politics or technology—even nanotechnology, a rather complex and fascinating science involving the molecular manufacturing, manipulation and arrangement of atoms to produce materials.

Recently, *IU* had the good fortune of speaking with Dr. Eric Drexler, father of the nanotech program at MIT and chairman of **The Foresight Institute**, a non-profit educational organization focused on bringing advanced technology to the public. Drexler has written three highly acclaimed books on the subject of molecular manufacturing, *The Engines of Creation*, *Unbounding the Future* and *Nanosystems: Molecular Machinery, Manufacturing and Computation*. In addition to creating atomic models and battling the many nano-critics out there, Drexler has been busy pioneering the Web Enhancement Project, designed to help the World Wide Web evolve into a model of "hypertext publishing:" available at **http://www.reality.sgi.com/whitaker/EnginesofCreation/**.

Coincidentally, Drexler was visiting with *Nanotechnology* journal editor-in-chief and Foresight Institute chair, Ralph Merkle, at the time of our interview. Even so, Drexler took a little time-out to speak with us about emerging technology and the increasingly popular Web.

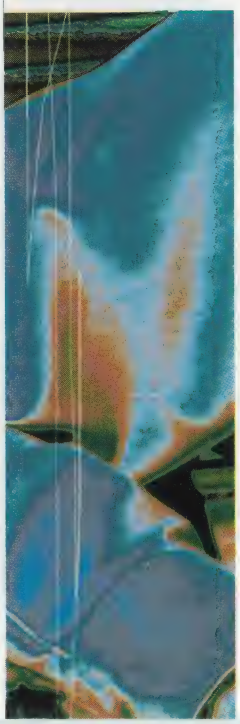
***Internet Underground*:** What is the focus of the Foresight Institute?

Eric Drexler: The Foresight Institute is focused on collecting and spreading information on future technologies, in particular nanotechnology or molecular manufacturing. Currently, we do that through a conference series, a paper publication, and increasingly, on the Web.

***IU*:** In your first book, *Engines of Creation*, you projected the development of hypertext publishing. Does the Web fit the model of interactive text you envisioned?

ED: It's a major step. There are still several pieces missing that I think are really important to get the kinds of benefits that I've been looking for, but we are starting to see those. In particular, what I for many years desperately wanted was a medium in which it would be possible to put up a brief statement of an idea, a bunch of material to back up that idea, a bunch of material to back up what backs up that idea, and we have that now. In addition, it would be possible for anyone to post a visible annotation to support or, more importantly, add a criticism of the idea, which in turn would have the effect that somebody else coming to that site could look at it and say, 'Oh, here's the *pro* side, and here's the best *con* side that anybody's bothered to put together.' And one response is, well, nobody cares, there isn't a very good counter-argument. But in some cases, you know that people care, and if you can't find a good counter-argument after the entire world's had a crack at it, that tells you something. There's no place you can go for that information today. So if that were a natural, ongoing part of the many debates people have on questions where there's actually something that looks kind of like an answer, I think we'd be living in a different world, and one in which a lot less human effort was wasted on arguing and re-arguing the same old stupid points, and more effort was going into things that really moved us forward.

***IU*:** You wrote in *Hypertext Publishing and the Evolution of Knowledge* that 'Abundant, effective criticism will decrease the amount of misinformation in circulation.' The Web is a veritable stock house of misinformation and unreliable sources.



ED: Yep. And part of the reason for that is that we still don't have what I've called a 'Full Hypertext Publishing system'—one in which you can not only see what the author has to say, but see what the world thinks of it. We're starting to see that. The new HyperWave software, my understanding is, really has the kinds of features that are needed there, and the current Foresight plan is to have a Web site that is based on that engine.

IU: Who is developing HyperWave?

ED: It comes out of Austria. It was initially an academic product and now it's a commercial product. Various companies are beginning to adopt it for Intranet purposes; it manages documents in a way so that, yeah, they can be seen through standard HTML browsers, but if you have more capabilities, you'll get to see things like backlinks and have them displayed properly.

IU: The Foresight Institute is working to develop 'backlinks' to allow a user to find all the links pointing *in* to a particular site. Where does that research stand and what are you doing with it?

ED: We are looking at a whole bunch of proposals and encouraging some efforts here and there, but that was decades ago in Internet time. Now we're saying, 'Oh, HyperWave looks good enough. Let's use that.'

IU: You have written about 'filtering,' hypertext tech that will display only links found by reader-selected criteria for the specific type of documents you're searching for. Will filtering be useful to the average computer/Internet user?

ED: First of all, if you are following links that somebody else has made in a document, it's already filtered, right? That's the forward direction. You're seeing what some person has put together. You're already at the site, so you must have some respect for the quality of the material there. But in any event, it's something you chose, and now the place that you chose has stuff that *they* chose (laughs) and so at least there's some hope that it will be interesting. You do an Alta Vista search and you get screen-full upon screen-full of stuff.

IU: Right, most of it you don't want.

ED: Most of it you don't want, so you filter through it. So it's a wonderful thing that search engines are there, but they only do part of the filtering job—they get you things by what terms are used. What you'd like is to be able to look at some site that has, over some period of time, come to represent the middle of some controversy, or some position in a controversy—something that really matters. Here's a position, a statement or argumentation, saying that global warming is a crucial problem or that it's ridiculous to worry about it. That the problem, historically, has been ice ages! Ice ages! Why are we worrying about things being too hot? Ninety percent of the last couple million years, it's been ice ages! But anyway, somebody could argue that. I'd like to see how that one came out, if argued thoroughly. But, people are willing to spend hundreds of billions of dollars based on theory A and there's a case to be made for theory B that isn't being made. So you go to that site and you find that 10,000 people have put in their "two cents' worth" on both sides of the issue. You can tell that because you pop up a little

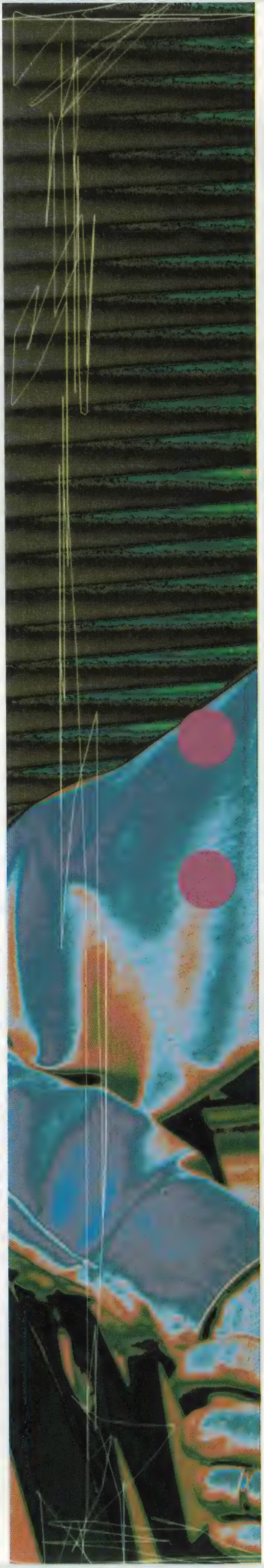
window and it says '10,000 links.'

IU: Referring to how this system might be designed, could you make it so that users could add personal information about themselves so the reader would know whose opinions he or she is reading? So that you can tell if somebody is an authority on an issue?

ED: Yeah. And then there may be some way of capturing some hints about that information imperfect, I'm sure. And you could say, 'I would like my browser to put at the top of the list, comments by people who have marked their comments in some standardized way, indicating they think they've got a really good argument that just knocks this thing down entirely. Or where other people who are something like me, maybe, have thought that it was a good argument. And if you can't find anything in that category, well, that's interesting. If you can, that's interesting too.

IU: In *Hypertext Publishing*, you wrote of television being the major medium, yet it seems poorly suited for critical discussion. If we start filtering, allowing people to define exactly what they need, in a sense choosing "channels" of information, aren't we taking away what makes the Web so different from television to begin with?

ED: I think it's going to be both different from what it is now and from television. Filtering would certainly let people disappear off into a sub-world of their own. But unlike television, it wouldn't tend to merge everybody in a particular sub-world—maximizing the number of viewers, or even the number who can spend money on advertised products, but on that weighted heavily by desire for viewers who are young, stupid or otherwise easily influenced by advertising. Talk about incentives! In general, if 99 percent of what's happening on the Web is entertainment or sports or whatever, that's fine—what I think is crucial is that there be some piece, some part of this world that makes it possible for the really big life-and-death issues of policy, technology and the future, in this time when everything is heading toward some great waterfall. (laughs) Perhaps a place where we can do a much better job of that, than can be done in the halls of Congress! Television! Newspaper editorial pages! And similar laughable media, where you see all of the these strange sorts of parrot noises, propaganda and advertising slogans instead of people laying out a representation of how they think the world works. There's a real world out there and we're not doing a very good job of understanding it.



IU: Breaking away from the Web a bit, considering nanotechnology, is the U.S. government funding research on molecular manufacturing and will a changing of seats in the White House affect research funds?

ED: The government is putting a lot of money into related, short-term science and technology efforts, efforts in new materials, in chemistry and small-scale construction instrumentation of various sorts. There is, to the best of my knowledge presently, no formal organized effort aimed at molecular manufacturing and I don't see any great difference between the two parties at this point. A couple weeks before Al Gore got nominated as the vice presidential candidate, I was testifying in the Senate sub-committee meeting that he organized and was questioned on this. In ways, I was amazed at how knowledgeable he was on the subject. Well, that was about four years ago!

> "There's a real world out there," says Drexler, "and we're not doing a very good job understanding it."

IU: Is the United States ahead of the game in nanotechnology or are other countries more advanced?

ED: I would say that Japan has a more organized effort in this general area than the U.S. does, though not one that's really focused on molecular manufacturing, exactly. In Europe, it's fairly diffuse. But again, a lot of interesting technologies are being played with. So on the whole, I would say the United States has the best technology base, [but] not by an overwhelming margin. We may be a little less focused on long-term vision, but that's a debatable point.

IU: Cancer, the common cold, HIV treatment and so forth, are major cash-cows for the pharmaceutical industry. If nanotech becomes a reality and conquers these ailments, in whatever form, do you expect resistance? This is a huge industry!

ED: (laughs) Oh yeah! My expectation is that when things really start rolling one of these years or decades, there will need to be enough change in enough different areas that I'm not too inclined to think about any particular industry. I would just say, 'Oh my! That's a huge mess.' And as for resistance, I think that the core technology is the sort of thing that is rather diffuse—and it's kind of hard to bottle up, or stop—I think everybody who's looked seriously at it says, 'Well, yeah, this could happen.' So, then I guess the observation would be in the context of some particular government, regulatory framework. There would be the usual activities of corporations trying to snarl up their potential competitors in red tape. With the pharmaceutical industry, for example, current policy in this country essentially states that you can't have a new drug unless it's patent-able and you have a quarter of a billion dollars. Because you're not going to spend a quarter of a billion dollars, or get anyone else to do so unless it's patentable, that says something. For one thing, that natural, metabolic materials and foods are not going to be very popular in the pharmaceutical industry and they're not going to be terribly popular by captive regulatory agencies, like the FDA.

IU: Okay, the $75 billion question. When will nanotech be a reality?

ED: (To Ralph Merkel in the background) What's the official date? He has the date. Ralph, what's the official date?

RM: Hello? June 12, 2015, 3 p.m. in the afternoon.

IU: That's Greenwich Mean, I take it.

RM: Yes, G.M.T. Of course!

SPOTLIGHT

A closer look at this month's #1 site: The '80s Server

By Craig Aaron

"Where's the Beef?"

"Greed is good."

"Rock me Amadeus."

If you still find yourself peppering your everyday conversation with any of the above phrases, it's time to face up to the facts—you're a child of the '80s. Don't fight it. While the '70s revival is still going strong, your turn is coming sooner than you think. So get ready: Turn up your Izod collar, spike your hair and moonwalk on over to the '80s Server (**www.80s.com**) for some of the tunes, tube and tastes that shaped the decade of excess.

The three dudes who run the site say they've always believed that the days of *Diff'rent Strokes* and Pac-Man were totally awesome; and now, the trio has turned its fetish for parachute pants, Reaganomics and Ferris Bueller into a full-time job.

"A lot of people I talk to are dissatisfied with the music and movies today," says Ken Wilson, the director of the '80s server. "So they return to the thing they know best—their childhood."

Wilson, CGI/HTML programmer Scott "Scooter" Murdock (no relation to *The A-Team*'s pilot H.M. "Howlin' Mad" Murdock) and graphic designer Stephen "What you talkin' 'bout" Willis spend most of their time in a small office in Overland Park, Kan. surrounded by Lionel Richie memorabilia. Everyday, the three dive knee deep into the hoopla that Molly Ringwald, Men At Work and *Moonlighting* left behind.

"We want to be the official, definitive encyclopedia of the decade we wish we could go back to," Wilson says.

Over 100,000 netizens visit the Server daily to read essays on topics such as the Challenger disaster or to turn on the RealAudio jukebox to listen to "Der Kommissar" and "99 Red Balloons." Additionally, the Server features elaborate sections on '80s entertainment, fashion, celebrities, news and technology, links to radical sites throughout cyberspace and several award-winning games that test surfers' knowledge of music and movies. "The Daily 100" section quizzes players on their knowledge of '80s films and the "Rewind" section works just like the game show *Name That Tune*, with the likes of The Go-Go's replacing Gershwin.

Wilson, 25, traces the creation of the Server back to the preadolescent days he spent watching the "biggest event of the decade," the birth of MTV, where he learned to love both Twisted Sister and Martha Quinn.

"I was a nerd," Wilson admits. "Basically, back in the '80s I was Butt-head. I would sit there with my RATT T-shirt on and make fun of the videos."

Wilson and Murdock met in college and became friends after realizing that they shared a passion for *The Facts of Life* and Ray "Who Ya Gonna Call?" Parker Jr. The pair started the site while working for an ISP where they often slacked from their networking duties to play around with HTML and trade memories of Hands Across America.

Originally the Server was going to focus on music, but the dudes didn't want to leave out *The A-Team*, *Ruthless People* or Jim Bakker, so they decided to take on the entire decade.

They soon teamed up with Willis, 24, who jumped at the opportunity to create graphic designs with pastels and neons. His work gives the Server its gnarly feel and provides the perfect complement to the photos, several which hail from a stash of teeny-bopper magazines that Wilson's fiancée had saved.

http://www.80s.com

From day one, the '80s Server was a hit on the Web. In no time, the site attracted thousands of visitors daily. The Server was then bought by a BBS complex, Metropolis Systems, and living in the past became a full-time job for the Server guys. It was a dream come true for Wilson. Instead of using his immense archive of '80s knowledge merely to amaze and annoy his friends, he was using it to get paid.

Sometimes, however, Wilson totally worries about spending so much of his time and energy in another era.

"Sometimes I think, 'What have I done with my life?'" he says. "The CD stores know me as the Milli Vanilli guy. It was a sad moment, but I had to break down and buy it. I told them, 'It's for research, I swear to God.'"

But even though it's now a job, Wilson's love for the '80s hasn't faded; at press time, he was excitedly searching for a few good break-dancing photos. *That's* dedication.

Popular culture became fascinated with the '80s era earlier than anyone at the Server had ever predicted and they hope that the trend isn't bogus. Wilson says renewed interest in a decade's pop culture historically doesn't start for about 20 years, meaning that there should be a full resurgence of spiked hair and synthesizers around the turn of the millennium.

So think twice before throwing out those Howard Jones records and start practicing the electric boogaloo. There's like, less than four years left.

Berkeley Systems' WEB.MAX is a collection of four utilities on one handy CD-ROM. WEB.MAX is embodied by Max, a friendly canine companion whose face appears on your taskbar for quick access. When called into action with a double-click, Max sprints onto your desktop and presents you with a menu to call up each of the four utilities. The interfaces are all spiffy-looking "gadgets" sporting a UNIX terminal-meets-*Star Trek* Tricorder theme.

Net.Retriever allows you to search the Net using a variety of search engines (automatically selected depending on the subject). The results are listed in plain text but allow you to open the result of your choice in your default browser. Search strings can be saved for later review. Web pages can be scheduled for downloading at off-peak times for perusal off-line. Because Net.Retriever uses search engines available for free on the Web itself, its value is as a tool to blend these engines into a single source.

WEB.MAX

By Berkeley Systems

$39.99

★★★★

In the vein of Pointcast, WEB.MAX TV offers the truly wired surfer a continuous stream of up-to-date information from about 20 sources putting out the W.MTV signal, including CNN, C|NET, and ZDNet. Get stock reports, national news and weather and other regularly updated information from across the Web. Information is updated automatically while the software is running. Just like the Web, however, this software is prone to some down-time.

WEB.MAX Phone offers voice communication and file transfer with anyone else in the world who's also running WEB.MAX. Direct file transfer is a very useful tool, especially when a fax machine is unavailable, or just for sending Simpsons sound files to friends. With a microphone and speakers, you can talk over the 'net to your friends who run their modems all day too. The one drawback here is that there is no text-only feature to allow communication with persons without microphones. More powerful communication software is available for free online.

WEB.MAX Security is a non-Web-related utility that made it all worthwhile to me. Selected files and directories are completely hidden from view when the security feature is activated. Multiple users are able to hide personal items with their own passwords. A master password is needed to activate or deactivate the security feature. Disk utilities such as ScanDisk and Disk Defragmenter will not run properly while directories are secured.

WEB.MAX throws in a new screensaver (featuring Max) to boot, which is a nice plus considering that Berkeley brought us the hugely popular Flying Toasters. On my machine, however, it trashed many of my After Dark modules. For more information (or to contact Tech Support if you fear for your After Dark), head over to **http://webmax.berksys.com**.

—Troy Brophy

CHAT

By Nan McCarthy

Peachpit Press

$7.95

★★

CHAT, a self-proclaimed "cyber-novel," invites you to eavesdrop on the correspondence between a man and a woman who have met online. Their budding romance is expressed only through their e-mails. Fine concept, but the execution is where the bloom fades from the rose.

Fortunately for all of us stuck on this planet, people are much more quirky and interesting than *CHAT* would have you believe. Bev and Maximilian's letters come off as wooden, and have none of the charm of real letters, nor of real literature. Although Bev and Max do suffer from some very human problems, such as alcoholism and infidelity, their characters seem too puppet-like. They never inspire the sympathy that they should, and you are left feeling that their troubles exist solely to advance the melodramatic plot.

The epistolary novel is a format that *can* be updated for the Internet age. *CHAT* simply underestimates the complexities of such a modern conversation. However, the voyeuristic element of *CHAT* is great fun, as are the headers that announce each snippet of e-mail.

CHAT is an amusing read for new users who are fascinated by the idea of falling in love over the wire, or who need some basic counseling in cyber-etiquette. More experienced users should just go ahead and crack some passwords. You may find *genuine* passion in someone else's mail files. *—Sarah Ellerman*

24 Hours in Cyberspace

by Rick Smolan and Jennifer Erwitt

Que Macmillan Publishing

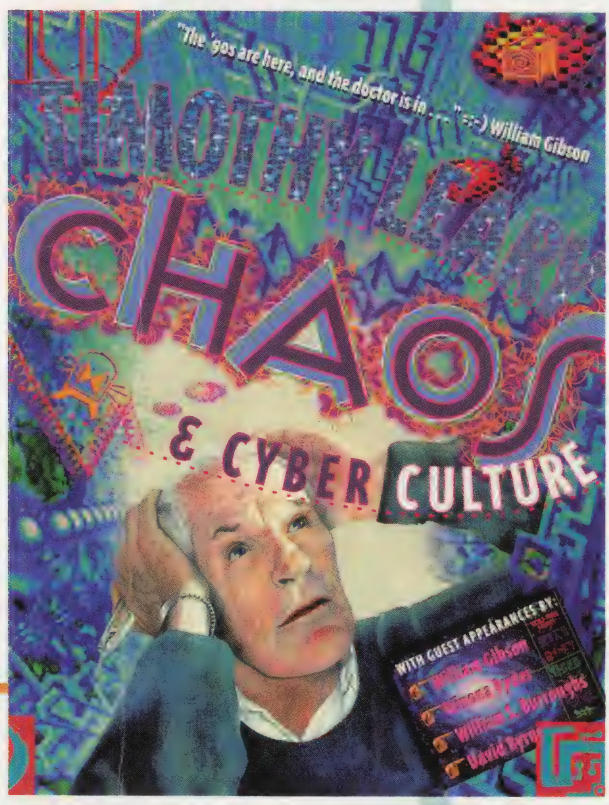
$49.95

★★★

This book represents perhaps the final chapter in one of the more ballyhooed Net events of the past year. First it was a concept, then a Web site, then a real-time event, then a retrospective and now, finally, a coffee-table book. Scratch that, an *expensive* coffee-table book. Before getting into the aesthetic merits of the book, the issue of price must be addressed. $49.95? I imagine that a good portion of this book's target audience could never and would never pay that. My guess is that the publishers figured that with the holiday season coming up, a lot of clueless parents will walk into bookstores, stumble across this nice book and think to themselves "Hmmmm, Otto spends a lot of time on that Internet. I bet he would love this book." Well, moms, dads, aunts, uncles and assorted relatives, listen up: Thanks,

Chaos & Cyber Culture
by Timothy Leary
Ronin Publishing, Inc.
$19.95

★★★★★



At the start of it all, Timothy Leary was a Harvard psychology professor—and though that may have changed relatively early in his life, he really never stopped teaching. This posthumous collection of short writings—focusing on the burgeoning information age and the events and ideas that have formed it—only continues his academic career...beyond the grave, as it were.

Leary's *Chaos & Cyber Culture* is a kind of 101 course about the realms of Quantum Digital Physics, humanism, cyber culture and how they all interrelate. And while the basics are all there, there's also plenty of cud for the initiated to chew on as well. (The interview between William Gibson and Leary, for example, is absolutely brilliant)

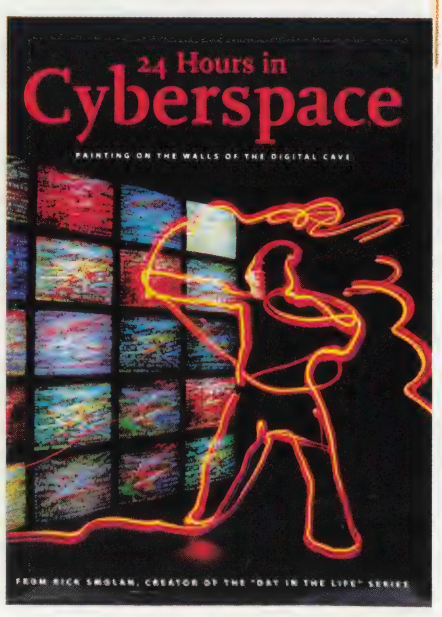
Amazingly, Leary deftly avoids the trap of technical writing; his text is always clear and entertaining. He writes to the people and not in the staid, boring language you're likely to find in pubs like *FringeWare* and *Wired*, which only serves to separate casual readers from techie masterminds. And rightly so: Leary has always been about declassifying information and making it available to the public, whether it be psychology, LSD *or* cyberspace. He values entertainment, not necessarily as the medium for the message, but the fuel or the path... and it shows.

Like any good teacher, Leary attempts to spur each reader's journey of discovery into his topics instead of simply listing his own interpretations. This book is full of signposts for readers to explore on their own. Alas, though the teacher is no longer with us, he's left an excellent syllabus to start off with. —*Joe Fielder*

but no thanks. Nothing against the book—it's actually quite beautiful. It's just that anyone who spends so much time on the Internet that they would be interested in the book will not want to own the book. There's something about its imposing permanence that betrays its subject matter. With apologies to both Elvis Costello and Frank Zappa, a coffee table book about the Internet is like dancing about architecture.

There are actually some fascinating stories about how different people around the world are using the Net (many of which you've already read about in the pages of this magazine). The photography is also top-notch, although we could have done without the photo of the bassist for the group the Mermen answering e-mail on the crapper. Your best bet is taking an hour and going over to your local Borders, breaking through the shrinkwrap and leafing through the book there, *gratis*.

—*Alex Gordon*



by Alex Gordon

Waldo Wears Thin

Andersen Consulting's Crystal Ball Is Cracked

I was in a rut; surf, eat, sleep, surf, eat, sleep.

Then I heard about a possible cure for my blahs. Andersen Consulting was starting a new service on the Web that, among other things, promised to find the Web sites that I secretly desired. I never even knew I "secretly desired" Web sites, but I figured what the heck, why not try it?

After all, businesses pay billions of dollars to consulting companies like Andersen every year. Andersen comes in and studies the situation and then makes recommendations as to how the company can bust out of its rut. And here I was, going to get their expert advice for free!

Admittedly, the service was in its infancy when I tested it, but again, it had the Andersen name on it. A prestigious multimillion dollar firm isn't going to sully its good name by putting some half-baked idea up on the Web, right? Right?

So, I punched in the URL (**http://lifestyle.cstar.ac.com/lifestyle/**) and behold! I was greeted by Waldo the Web Wizard, who claimed he could see my future, my dreams, my hopes and the Web sites that I "secretly desired."

"Wow! Waldo's finally going to get me those URLs with doctored GIFs of Alicia Silverstone," I thought to myself.

All Waldo asked in return was that I answer "a few soul-revealing questions from the mystical archives of wisdom." Hmmmmm, soul-revealing questions? Was Waldo going to probe my feelings on religion? Politics? The meaning of life? This guy seemed serious. I hesitated for a moment. I'm not one of these privacy nuts, but still—"soul-revealing questions"—I don't usually like to give out my home phone number when registering at a site. Still, Waldo was promising me a lot: "Do this—and Waldo will guide you straight to the Web sites you'll find so interesting you'll think they were created just for you...after showing you the Web sites you really want to see most, Waldo will reveal to you the secret reasons how Waldo the Web Wizard's LifestyleFinder will help change your life—forever."

Change my life? Web sites tailored just for me? And all I had to do was answer some soul-probing questions? Sign me up!

My appetite keen, I clicked on Waldo's crystal ball. But before we could get started, Waldo fired back with a disclaimer. Something about being only a prototype and how Andersen doesn't guarantee the results. Whatever. They were just trying to weed out the rubes. I believed in Waldo and no legal mumbo jumbo was going to rain on my parade. I desperately clicked forward.

"Behold! Waldo senses one of these scenes resembles what you watch on television...kindly show Waldo what you watch most on the tube."

This was soul-revealing? Anyway, I had to choose one of six cheesily-drawn cartoons (by comparison, *Hi and Lois* is DaVinci) that pigeon-holed my viewing tastes. There was no choice that said "NBC on Thursdays except for the new Brooke Shields show and *The Single Guy*, plus *X-Files*, *The Tick*, *The Simpsons*, and Cubs, Bears, Bulls, Michigan and Northwestern games," so I picked the category "sitcoms." Since "sitcom" is a pretty loose category encompassing everything from *Seinfeld* and *Frasier* to *Full House* and *Family Matters*, I must say at this point, I was starting to have my suspicions about this Waldo fellow. Still, I decided to give him another chance.

Next, Waldo asked me what I like to do after coming home from work (it's noteworthy at this point that, after professing my taste for sitcoms, Waldo gleaned that I was gainfully employed). Again, I was given six choices about "preferred activities" in the form of six cheesy cartoons. Since "sitting in front of the TV with a cold Rolling Rock" was not one of the options, I informed Waldo that I liked to participate in sports.

I can see by my word count that I'm running out of space, so I'll have to cut to the chase. Waldo went on to ask me what kind of house I live in, what kind of beverage I like to consume, what my favorite part of the newspaper is and what kind of music I like. Each time I had my pick of six cheesy cartoons.

Anyway, in the end, here is the portrait Waldo drew of me: "Waldo can see your apartment—which to you is a welcomed haven after a long day of work. It's a place to relax with friends, listen to music and eat jerky-based snacks. Waldo knows you enjoy the sun, friendship and chewy chunks of dried beef."

And what about those Web sites tailored specifically for me? Waldo came up with 15 sites. Of those 15, I can say I was realistically interested in only three. Some of Waldo's misses: sites for Bell motorcycle helmets, Chase Bank credit cards, Kelly-Springfield tires, Majerle's Sports Grill (in Phoenix), the National Automotive and Truck Museum and Shooter's Billiards Supplies & Sales.

These were the Web sites I secretly desired? Please. Using URouLette, I had a better chance of finding enjoyable sites. OK, so maybe this is an exaggeration. The first site URouLette sent to me was for the Scrap Plastic Depot, but you get the point.

My advice? Don't waste your time with Waldo.

WEB Guide

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A whirlwind tour of what's on the other screens.

73 CELEBRITIES
A visual, virtual gossip column.

74 THE THREE R'S
Riotous, revealing and revivifying. And you may just learn a thing or two.

75 ZINES
What to read after devouring *Internet Underground*.

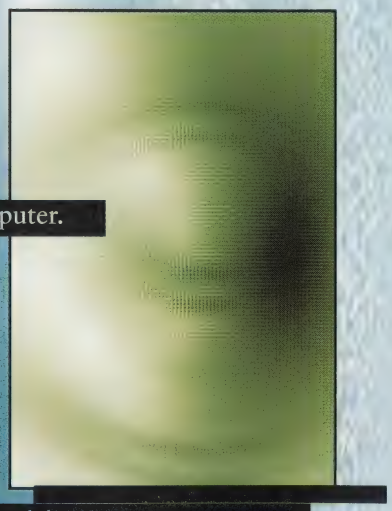
76 TUNEAGE
Satisfy your aural fixation.

77 JOCKS
After a workout there's nothing like sitting in front of the computer.

78 BANDWIDTH
Your guide to getting the most out of the Net.

79 RANDOM
How and where to keep an eye on "The Man." An election celebration.

80 AMUSEMENTS
The great time-waster. If it's useless and fun and threatens your sanity or employment status, you'll find it here.



This month we've added some variety to the WebGuide. We have enlisted writer's from sea to shining sea to help us hunt out the most interesting Web sites out there. Contributors Mark Smalley ("Random"), Jason (dj son) Wiener ("Tunes"), Juan Gan ("Bandwidth" and "Three R's") and Greg Hyland ("Cathode" and "Amusements") have stalked, wrangled and reviewed sites they thought you might enjoy. Remember to send your suggestions to webguide@mcs.com.

BATTLESTAR GALACTICA

http://mcmfh.acns.carleton.edu/BG/

The chance to download Cylons saying "By your command...!" is enough to make a trip to this site worthwhile, but there are a few more goodies here for those of you who actually care about (or even remember) *Battlestar Galactica*. Besides the usual trappings you find at a television site, such as images, FAQs, episode guides and background information, there is *Galactica* fan fiction (good lord!), songs, information about the requisite "revival campaign" and even the chance to download the "*Battlestar Galactica* fonts." And if that isn't enough, there is a pretty respectable list of *BG* links. This site has better production value than the show could ever have hoped for!

Webmaster: Mark F. Heiman

★★★★

CAR STARS OF FILM AND TELEVISION

http://www.intercall.com/~javelin/tv-cars.htm

Find lots of pictures and information on the "Car Stars," which this page says is "the real reason to bother watching that show!" The page is divided up into movies and television. And by browsing the list of cars, you'll surely be surprised by the number of cars you come across, and how many you've forgotten about. There is information about what the car originally was: For example, you'll find out that 'The General Lee' from *Dukes of Hazzard* was made from a "1969 Dodge Charger, 1974 Road Runner, Ford wrecker, various police sedans including Plymouth Furys/Dodge Monacos and AMC Matadors." Cars you wouldn't think about including are featured here, such as Wayne's Pacer from *Wayne's World* and the bus from *Speed*.

Webmaster: javelin@allinone.ds5.com

★★★

DEGRASSI HIGH PAGE

http://www.fl.net.au/~parasail/degrassi.htm

Find out all about this endearing PBS/CBC high school drama which tried to accurately portray high school life. This show actually has quite a big closet cult following, but the poor little Webmaster thinks no one will ever visit this page! How wrong! You'll find a really funny (but accurate) write-up of most of the major characters (like Joey Jeramia, Snake, Wheels and all the rest with those corny nicknames) and a few images. There is also a list of all the other *Degrassi*-related sites, so this can be your gateway to surf the Web Degrassi-style.

Webmaster: Kim Gilmour

★★★

FUTURA BATMOBILE HOME PAGE

http://www.geocities.com/MotorCity/2071/

This page is dedicated to "the only Batmobile that matters!" There is information about all five Batmobiles made for the '60s TV show (Did you know that the third Batmobile had no rear windshield?), and even pictures of "the Futura," the car that became the Batmobile BEFORE it was the Batmobile. There are many great photos available at this site. The most frustrating thing on the page is finding out that I need $120,000 to buy a Batmobile replica (send donations in care of this magazine!).

Webmaster: javelin@allinone.ds5.com

★★★★

THE GAME $HOW PAGE

http://ezinfo.ucs.indiana.edu/~wlambert/GSP.html

I could start with typical game show-esque banter to review this page, such as "What's a thoroughly researched resource for game show information, Alex?" but I won't. I just want to say my jaw dropped to the ground a couple times when viewing this site. There are actual images from *Match Game '78* here, and under the section called "Game Show News," there actually *is* some game show news. This has all the features a good television site should offer, such as photos and information about when the shows are on, some keen theme songs to download, the rules to 69 different shows and a list of videotaped shows that are up for trade.

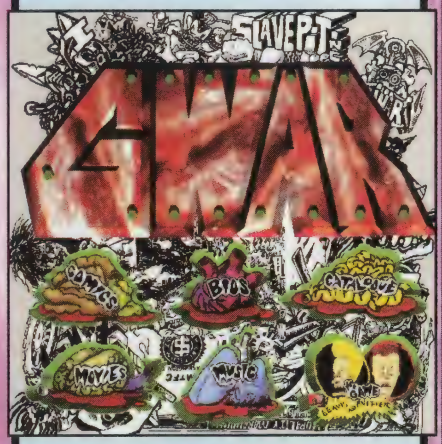
Webmaster: Chris Lambert

★★★★

GWAR INTERNET SLAVE PIT

http://www.iuma.com/gwar/

Learn the shocking full color story of *Gwar! Gwar*, for those of you who don't know, is the heavy-metal rock band completely composed of monsters, who fight their enemies while performing on stage. The Internet Slave Pit offers biographies each of the amazing members of the band, and information about *Gwar*'s numerous videotapes, albums, comics and video games (yes, it seems a *Gwar* concert is the 'quest,' as it were, of the *Beavis & Butt-head* video game!) and a catalogue of keen *Gwar* merchandise. For the truly brave, there are Quicktime video clips and sound clips to download.



Webmaster: The Slave Pit

★★★★

HOGAN'S HEROES

http://kirk.microsys.net/personal/franklin/hogan.htm

For those of you who think being a Nazi prisoner of war is funny, here's the page for your favorite show. It features a pretty good episode guide (complete with original air date information), cast information and listings of when and where the show is in reruns around the country. The most interesting thing on this page is the "trivia" section which has some neat little facts (did you know the show is aired in Germany under the title, *Cage Full Of Heroes*. It also lists all the episode titles in German and when they'll be aired as well.

Webmaster: franklin@microsys.net

★★★

THE NEWSRADIO STATION

http://www.shaflik.com/shaflik/newsradio/home.html

This is a really professional-looking page for the show *NewsRadio*. It features the usual fan site goodies, such as an episode guide, cast information, images and sounds (They're quick! I downloaded several!), but also has an extensive collection of magazine articles about the show, and the best item, "Jimmy's List" (which, for those unfamiliar with the show, is the station boss's list of 36 wifey prospects).

Webmaster: Steve Warde

★★★★

ULTIMATE TV SHOW LIST

http://tvnet.com/UTVL/utvl.html

What is the most valid statement on the Internet? "Looking for links to pages about your favorite TV show? The Ultimate TV Show List is where to begin." This page claims it contains 6,195 links for 948 shows, including 1,294 Web pages. This page even offers links to shows whose titles come up empty on any of the major search engines' lists. Search for any show you want information about, or browse alphabetically or by show genre. Also, if you choose, it'll even give you a detailed description of the pages the offered links lead to. For anyone interested in television, go to this page, and put a bookmark on it NOW!

Webmaster: utvl-maintainer@utv.net

★★★★★

THE YOU CAN'T DO THAT ON TELEVISION WEB

http://www.PERnet.net/~rbarrow1/ycdtotv.htm

Here is a Web page for a particularly bad Canadian comedy (and I use the word "comedy" rather loosely) show aimed at kids. There was nothing spectacular about the show, and there isn't much spectacular about this site—except for one thing: You can find pictures of one 11-year-old cast member, now pop superstar, Alanis Morissette, getting slime dumped over her head. That alone makes this site interesting. Isn't it ironic that young Alanis looks like a boy? No, it isn't ironic at all; it's just plain funny!

Webmaster: rbarrow1@mail.pernet.net

★★★

CAROL ALT HOME PAGE

http://www.alt.slash.com/

So this is Carol Alt's very own page, huh? Yes, apparently it's true—the '80s supermodel has her own little catwalk in cyberspace. On this site, you'll find information about her illustrious career, images taken during various stages of fame and her fashion advice and product pages. This site has just about everything a young, aspiring model could want, including Mother Alt's philosophy on technology: "In a field as global as 'modelling,' the Internet can be a great marketing or communications tool." Writers, take note. Carol could use a copy editor. (The word "modeling" is misspelled throughout the site.) You can purchase Alt's products, including her really bad films, here as well. "Of course a person has to use their Web site to sell their wares." If this page were an IQ, it would be an 80, but, as to be expected, it's not smart, but it sure is pretty. Be sure to click for your free and "Interactive" Carol Alt calendar.

Webmaster: Carol Alt (Hmm?)

★★★

AMC STUDIO'S BACKLOT

http://www.amctv.com/amchome2.html

Take a peek into a star's dressing room or refresh your memory of classic films in the "Backlot," the home page for cable network American Movie Classics. This site offers boundless amounts of information about stars such as Bette Davis, Marilyn Monroe, Clark Gable and many more. The "Screening Room" features the AMC programming calendar, the day's schedule with brief movie descriptions, the "Dressing Room" details what it was like to be inside celebrities' prepping quarters and the "Star of the Month" feature highlights a different classic film celeb each month. Links to many other movie and celebrity Web sites as well as current press releases and coming attractions are included. This site is very entertaining and designed with excellent old-school Hollywood pizzazz.

Webmaster: webmaster@amctv.com

★★★★★

JEAN-MICHEL BASQUIAT

http://www.broadartfdn.org/c04.Basquiat.html

"PLAYING ART WITH DADDY'S MONEY." Deceased artist Jean-Michel Basquiat, known on the streets of New York City as graffiti artist "SAMO," was delivered to mainstream popularity and coffee tables through the recent film *Basquiat*, his life (as an artist) story. This Web site, part of the home page for the Eli Broad Family Foundation, briefly describes the artist's ascent to popularity until his death by Heroin overdose in 1988 and displays one example of his work. This site is not the main course; it is just an appetizer. You will leave it feeling hungry for more Basquiat, in which case you'll probably have to design a site yourself. We haven't found anything very good out there, yet.

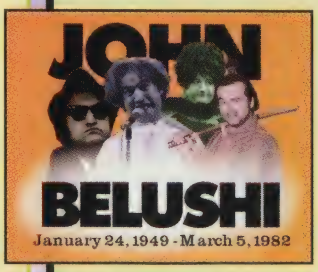
Webmaster: curator@earthlink.net

★★★

THE ULTIMATE JOHN BELUSHI TRIBUTE PAGE

http://www.geocities.com/Hollywood/9264/

It's doubtful that even John Belushi's mother knows as much about her son as this Webmaster does. This site is a long biography about the late comedian/actor/musician who needs little introduction. But for clarity's sake, he is recognized most as one of the original *Saturday Night Live* cast members and for his role as Jake Blues, of the Blues Brothers duo from the *SNL* skit and film by the same name. Black and white images of Belushi are included in chronological order, forming a timeline of his career to complement the text. Don't miss the links to other Belushi and Blues Brothers sites as well as a really cool link to the analysis of Belushi's palm.



Webmaster: mao9148@coscc.cc.tn.us

★★★★

REVOLUTIONARY FIGURES

http://noontide.lick.pvt.k12.ca.us/Lick/courses/history/senior/worldrev/proj.html

Celebrities come in all forms. The celebs featured at this site are historical revolutionaries, such as Chairman Mao Tse-tung, Gandhi, Deng Xiaoping, Leon Trotsky, Ayn Rand, Karl Marx and more. Each page features an image of the revolutionary leader and biographical information of varied length. This site, however, is not just a yearbook of activists. Each leader is put into historical perspective under a time frame or a political/social genre. The categories include "Influenced by Marxism, Social Influences of the '60s-'90s, Colonial Revolutionaries, Bloody Revolutionaries, Rejected Middle Class and Peaceful Social Reformers." The site doesn't try to totally persuade you, but the writers have definitely learned a thing or two about propaganda in the course of this site's creation. If you're a conformist, bring your objectivity.

Webmasters: Roland "Goat TEA" and Nathan the phisher

★★★★

OLIVIA D'ABO

http://www.datasync.com/~wksmith/olivia.html

There's something strangely disturbing about viewing this site with a RealAudio, moog version of "Light my Fire" playing in the background. Especially when the Webmaster introduces the site by writing, "Welcome to my little pages dedicated to the beauty of Olivia d'Abo. Sorry, but no nudes will be found on these pages. There is something about her that really rings my bell!" Shouldn't that be, "Lights my Fire?" A grid filmography highlights the actress' roles, from films such as *Conan the Destroyer* and *The Wonder Years* to her most recent undertakings as the voice of Sonya Blade in the television version of Mortal Kombat Defenders of the Realm and her role in TV's *The Single Guy*. This site contains lots of links, mostly to the Internet Movie Database, so don't take off your coat; you'll be out the door and on your way to other Web sites before you can say, "Webmaster."

Webmaster: wksmith@datasync.com

★★★

LINDA FIORENTINO

http://www.resus.univ-mrs.fr:2000/~mactyler/

"She wants it all... and she wants it now...she'll take no prisoners." You love her, you hate her. This site is a tribute to arguably one of the sexiest and intimidating women in film and can be read in either English or French. Fiorentino, known for her roles in *Gotcha*, *The Moderns*, *The Last Seduction* and *Jade*, is exposed in interviews that reveal the "true" personality of the film star in the tone of, "I'm the only real man I know." A picture gallery includes various images of the actress from unexpectedly cute to more commonly seductive. A link to the official Fiorentino Home Page and a small filmography and biography complete the site. The site is dark but nice to look at, like the subject.

Webmaster: mactyler@resus.univ-mrs.fr

★★★★

PROJECT BUSTER

http://www.netbistro.com/buster/buster.htm

Project Buster is a great site for filmography and a multimedia tour of the comedy writer/actor/director's career, however, you better know who Buster Keaton is, to some degree, before you venture onto this site. Keaton, a physical comedian who was matched perhaps only by Chaplin, began his career in silent film and expanded into television and film until the 1960s. This is an "advanced" fan site that skips over the biography and jumps right into the career accomplishments. Sound bytes, very thorough links to film information and movie images, .mov files and personal images complete the site. Perhaps watching and hearing samples is the best way to experience the successful screen career of Keaton, as most of his work is truly beyond words. Very entertaining and well-designed.

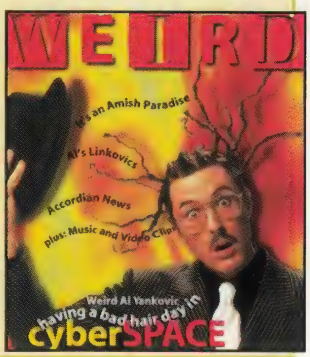
Webmaster: mecca@netbistro.com

★★★★★

WEIRD AL YANKOVIC WEB PAGE

http://www.allamermusic.com/

This site, deemed "Hotweird," a parody of a well-known online zine, is the home of the king of musical parody, and his most recent deconstruction of various pop songs. This All American Music home page links to numerous Weird Al sites, displays information about the performer's latest CD release, "Bad Hair Day," and features contests, Weird Al's biography, links and various other amusements. Quicktime movies of segments of from the hilarious "Amish Paradise" and "Gump" video parodies are downloadable, if you're willing to wait a few minutes to check out his latest hits. If you're not that patient, try the .wav sound bytes of songs such as "Alternative Polka," "Phony Calls" and more. It's difficult to see this site as anything other than an advertisement, but it is entertaining, nonetheless.



Webmaster: All American Music

★★★★★

ADAWEB

http://adaweb.com

Easily one of the more creative sites on the Web, Adaweb begins with two simple pictures of a truck and then goes into abstract high jinks. Enter Securityland where you can "change beliefs." Then go to the influx and visit group Z, we both belong, captain's lair or the amorphous body study center (believe it, it really exists). The electronic form of an art magazine, Adaweb explores the world of philosophy and art with cool graphics and hip fonts. Pictures of virtual buildings to Big Brother-esque figures asking all sorts of questions are also included. Don't expect the typical menus and tables at this site and by all means, check your hallucinogens at the door. They won't be needed.

Webmaster:johnb@adaweb.com

★★★★★

ARTDEAL

http://home.earthlink.net/~wntl/artdeal

Artists can finally get some constructive criticism for their paintings over the Web instead of lousy analysis from their beer-drinking buddies who think hanging a Nagel print in the bathroom constitutes art. In the "Features" section, contemporary artists such as Judy Glantzman and Porfifirio DeDonna have their works displayed and praised. Read interviews by Charles Guiliano from the *Boston Critic* and from the publisher of *Artdeal* magazine, regarding his zine. Also, the authors of essays such as those titled, "The Trouble with Painting" (not to be confused with getting in trouble for painting, such as with graffiti) and "Women in Abstraction" offer their commentary. ArtDeal is a well-organized site with a clean, attractive design.

Webmaster:wntl@earthlink.net

★★★★

ARTNET

http://www.artnet.com

The news section at this site has the daily feed of topical art events such as museums getting funding and the elimination of the NEA. The features department has stories about the transformation of Times Square to the art of found rocks in China and Europe. Of course an art zine wouldn't be complete without reviews and this site has summaries of gallery exhibits from artists such as Simon Leung and Yayoi Kasuma. The art forum has a few articles and the international reports department collects and displays art info from around the world. This is a stripped-down site (even the logo is in plain text) that could probably use some scanned images, graphics or something resembling visual content. Also included are the portfolio, books, fiction and horoscope departments.

ART NET
The Art World Network

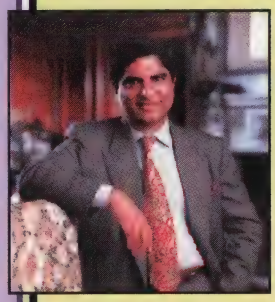
Webmaster: wrobinson@artnet.com.

★★★

DEEPAK CHOPRA AND AYURVEDIC LINKS HOME PAGE

http://www.georgian.net/~mcleod/chopra.html

This is the guy who called the brain the greatest pharmacy on the planet. Doctor Chopra comes from a scientific background, but has taken the scientific world by storm by introducing all sorts of things that will enhance a person's health, not to mention boost the libido. Using principles of ayurveda, a 5,000-year-old healing treatment from India, he has fused this ancient art with conventional medicine. With several best sellers and several infomercials under his belt, he has spread his gospel worldwide (and become extremely wealthy in the process). See what the buzz is about on this site for the father of progressive medicine.



Webmaster: mcleod@georgian.net

★★★

JOHN DONNE RESOURCES

http://www.alchemyweb.com/~alchemy/englit/sevenlit/donne/donlinks.htm

Trying to send that love message across the Internet? Why not upload Donne's Love Poetry read by Richard Burton? It's available at this site. This site includes biographical information in the form of timelines and details of the relation of his life to his work. Also, see books that include his poetry and commentaries about the "Sun Rising" and the holy sonnets. Interchange groups about "Holy Sonnet #14" and "The Flea" are also available as well as some letters written by the poet himself. Don't miss the link to the John Donne Home Page. It includes a swell picture of the guy.

Webmaster:anniina@alchemyweb.com

★★★

VLADIMIR NABOKOV

http://www.empirenet.com/~jahvah/nabokov.html

What's the rave about this author who has influenced artists from Kubrick to Sting? Figure it out on this site. You'll learn about the latest movie or opera of *Lolita*, *Nine Stories*, *Nicholai Gogol* and other factoids you'll find useful in Trivial Pursuit matches. In the "Nabokronology" section, details about Nabokov are documented, including his time in America to his death in Switzerland. Of course this is a literature site so it wouldn't be complete without reviews, essays, articles and links; it has them all, whether you want them or not. Having an affair with a young woman? Well it's high-time you discover this ol' chap by reading some of his works. They are better than this lukewarm site, we promise.

Webmaster:www-team@press.uchicago.edu

★★★

THE SALEM WITCH TRIALS-1692

http://www.celticcrow.com/trials.html

Break out the eyes of bat and toe of bush baby and see what this site has to offer. The year 1692 was big for the bewitched people of Salem, Mass., and several women are probably floating in limbo for having been innocently tortured and killed (or else their souls are eternally damned and they are wandering about hell). The Salem Witch Trials home page features a chronology of the events that transpired in Salem at this time and includes a little ditty about the hysteria that prompted all the mayhem. Also links to the Witches League Home Page. Mostly textual.

Webmaster:WLPA@CelticCrow.com

★★★

VOODOOPORK

http://www.voodoopork.com/main.htm

What is salty, bloody, pink and goes oink? Voodoopork! What is it? A collection of all sorts of artwork, music sites, filmmakers and more. Expect a lot of pink and flying butterflies when visiting this site but also expect some parts to still be under construction. Your oinkmaster, Pork Le Fleur, reveals her "endlessly fascinating facts" about herself and introduces visitors to her associates, the Lint Twins. This site gets bonus points for staying within the theme but it needs some work before it can truly claim to be "original dumping ground for crap and time-consuming Internet nonsense." Your patience may be in the red, not pink, after spending too much time here.

VOODOOPORK

Webmaster:oink@voodoopork.com

★★

BOB MARTINEZ~DIAMOND

http://www.agenda.net/bobart/

Pop over to Bob's house and see his collection of paintings, animation and 3-D models. With very little text (let the art speak for itself), this site features pictures of cats, dogs, fire hydrants, sunflowers and ridiculously happy coffee mugs. In the animation section, a house spins on its axis and then a plane spins out of control (no need to wait for a silly file to download, it's a GIF). On over to the 3-D models department and it is a Diet Pepsi can in full color that really looks like a photograph. It also features a pink stage, a chess set, a street sign and many more realistic computer renderings.

webmaster:Bob Martinez

★★★★★

MATTHEW ANGORN ILLUSTRATION AND DESIGN

http://www.agenda.net/matt/

In the words of the artist about his paintings at this site, "some are digital and others are traditional, but all are interesting." This is easily evidenced by checking out some of the portraits which include a big-nosed guy with the strangest-looking glasses (did Matthew inhale?...Hmmm). Most of the pictures take no time to download and the resolution is very high. Artwork from two children's books are also included entitled, "The Invasion of Planet Wampeter" from Perspective Publishing and "Letters To Santa," a collection of real letters written to old Saint Nick. With its monsters popping out and smoke streaming from candles, this site is definitely worth the trip.

webmaster:mdangorn@aol.com

★★★★

AKROPOLIS

http://www.iquest.net/akropolis/index.html

Akropolis is an arts e-zine dedicated to fine art, theater, music, film and literature and is created by individuals who are involved either professionally or academically in each respective area. The zine is published monthly, featuring well-written if a bit academic articles with interesting angles. The opinion sections, including movie and music reviews, are also written by, dare we say, "experts," or at least people who appear to know enough about the topics to make the reviews interesting and informative. The site is very simply designed and easy to use. If you like or dislike any of the content here, you don't have to be a silent audience. *Akropolis* has a message board that you can post to with your gripes, accolades and questions. Now that's interactivity!

Webmaster: Timothy Kowalsky

★★★★

THE ATLANTIC MONTHLY

http://www.theAtlantic.com/

This long-running print publication dedicated to "Politics, society, the arts and culture" as well as a broad range of other issues has an online companion that publishes, near entirely, the current month's issue on the Web site (most of the print edition content is here, with the exception of articles and images that writers and artists specifically request to be excluded). In addition to the excellent features found in the print edition, the Web site also contains a "Post and riposte," a forum for discussion, relative to the types of topics you'd read about in the magazine. Extensive lists of links to poetry and literature resources and an archive of authors and poets published in the zine since the birth of the online site in 1993 is a highlight.

Webmaster: web@theatlantic.com

★★★★★

BEATDOWN MAGAZINE

http://pilot.msu.edu/user/wigodski/beatdown/beatdown.htm

If you are looking for an online guide to films that run along the arts circuit, or foreign, overlooked and independent films, *Beatdown Magazine* is a great resource for you. This zine features British and Asian film reviews and movie release information, as well as Trash Cinema and Urban Drama summaries and critiques. The reviews are in-depth, featuring more than ancillary opinions, and actually analyzing the plots, acting, cinematography and so on. The graphics are pretty cool too. Alphabetical indexes in each category allow you to seek out the film you want to read a review of. Don't miss the special sections on directors.

Webmaster: Alan Wigodski

★★★★

BLENDERWEB

http://www.blender.com

BlenderWeb is the Web site companion to *Blender*, the pop-culture CD-Rom magazine. *BlenderWeb* is a fun-fest filled with entertaining features, music interviews and reviews and other really amusing time-wasters. The best section is the Hype Report. This page highlights what "works" and what "irks" the public regarding media hype: "Tommy Hilfiger's Fashion Empire: Hip Hop kids help Yuppie K-Mart look dominate the streets! What next, baggy clothes?" and "Garbage You Want to Take Out: Three aging studio dudes hire a pouty young singer. It's not Garbage, it's Recycling!" are examples of the comments you can expect to read here. Audio previews of the current issue and Web-exclusive features are also included. Don't miss the *Blender* A-to-Z primer of pop culture terms with audio correct usage samples.

Webmaster: circulation@blender.com

★★★★★

ELECTRIC JESTER

http://members.aol.com/elecjester/index.htm

"*Electric Jester* intends to fulfill the role of the powerful jester in this modern age. We'll tackle tough issues facing our society by poking fun at them in a lighthearted way. Then we'll let you act as a king or queen by making decisions about the issues we present." This e-zine features articles on a wide variety of themes, focusing on politics, social issues and odd little quizzes and such. The site is mostly textual, and the articles are always changing and interesting to read. While you may expect a jester to be slapstick and stupid, this humor and entertainment in fairly top-notch.

Webmaster: elecjester@aol.com

★★★★

FURIOUS GREEN THOUGHTS

http://www.furious.com/

Billed as the zine of "Politics for anybody who finds anarchy too boring," *Furious Green Thoughts* is a randomly published e-zine of "unconventional" social and political criticism made up of features from a long list of contributors. As a matter of fact, the "contributors" page alone is a very interesting read, with an amazingly diverse group of writers contributing to the content. The articles here are broken into several categories, for example, "Edgy-cation, Women/Men/Animals, Drugs/Health, Media Muck" and so on. The pieces are impressively written, featuring controversial and well-presented arguments and insights on the issues at hand, as many of the writers have professional backgrounds or education in the topic they are addressing. The site is easy to navigate, very entertaining and educational. A word to the wise: Bring an open mind; these guys aren't afraid to say what they think, an attitude which is quite refreshing.

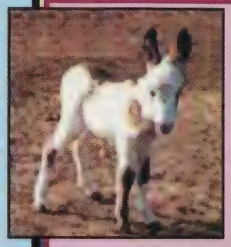
Webmaster: furious@furious.com

★★★★★

MINIATURE DONKEY TALK MAGAZINE

http://users.aol.com/minidonk/private/mdt.htm

"You gotta admit, foals are cute..." What does this site prove? That there's a zine for everything. *Miniature Donkey Talk* has been published in print since 1987 as the official publication of the International Miniature Donkey Registry and is now produced on the Web as the same, bi-monthly book. From stud service contracts to donkey care products and novelty items, anything you need, or want, to know about breeding and raising miniature donkeys can be found here. You can't read the current issue online, however you can read all of the back issues if you don't want to spend at least $25 a year to subscribe and you don't really care if your donkey news is timely or not. There aren't a lot of pictures here, with the exception of a page called "Cute photos," so the casual reader without a donkey to tend to may get bored pretty quickly. But you can change that; a listing of donkeys for sale is included.



Webmaster: Bonnie Gross

★★★★

REPORTAGE @

http://www.users.interport.net/~akreye/

Reportage @ is a photojournalism and current events e-zine that presents essays and editorials in the form of a travelogue from war zones, cities and countries in political, economical and social turmoil. The style these photos and articles are presented in is similar to that of Jacob Riis, the Danish immigrant and photojournalist who became recognized in the late 19th century for photographing tenements and similar settings. Many of the articles, written by various authors, contain disturbing, yet very realistic details about global conditions in the 20th century. The articles are featured in German and English, with photo essays adding, occasionally, to the content. Links to AP, Reuters, CNN and other global news services are included. This is not the most upbeat place to spend your time, but it is a site that will move you greatly.

Webmaster: Andrian Kreye

★★★★★

SOCIAL JUSTICE E-ZINE

http://members.tripod.com/~goforth/socialjustice.html

Besides the fact that you may feel as if you are reading this zine off a brightly colored shag rug, the purpose of this zine is well-received. This e-zine is dedicated to publicizing social injustice and motivating individuals to participate in changing inhumane behavior on the part of world governments and authority figures. This *Power to the people* site is a monthly publication that focuses on "the struggles of people everywhere who work for gender equality, democratic government, economic opportunity, intellectual freedom, environmental protection and human rights." The editors of the zine have worked extensively in social service and bring their experiences and insight to the articles they feature. The stories are disturbing, but, as most sources are cited, apparently very real. Feedback is encouraged, and trust us, you'll want to talk.

Webmasters: Ray and Kim Goforth

★★★★

DA MIX
http://www.labsolutions.com/da_mix
In stride with the surge in online music, Da Mix offers a great angle on culture and music. There are sections on prose and basic club/life-type stuff and a RealAudio area that makes .aiff or .wav downloading look like Fred Flintstone in the gravel pit. "X-Radio," as it's coined, pipes in great current dance music in many flavors, as well as phantastic mixes from actual DJs. Only one complaint, the menu toggles back and forth between a Java logo-swirlimage and you're stuck until the menu returns. Otherwise, it's the bomb.
Webmaster: Da Mix
★★★★

DIGGETY HIP HOP PAGE
http://www.asb.com/usr/onpoint
One thing's for sure, the Hip Hop scene has a great community vibe to it. Hip Hoppers seem to work together to make each others' skills grow with their own. The Diggety Page attests to this. Although visually not the most appealing, anyone can browse the site and get the skinny on the industry. Even better, if you're an audio scrounger, you can download audio clips, check out the "Loop of the Week," or even brush up on your production skills. All around, a great site with a lot of thought and attention put into it. Props Out and Thumbs Up.

Webmaster: Studio Don/onpoint@unix.asb.com
★★★★

FUTUREMIX
http://www.futuremix.com
This is a site that you should definitely keep an eye on in the future. Created by the crews on the Right Coast, the world of clubbing and dance music comes alive with Futuremix. You can stream in RealAudio sets from different DJ appearances and bop 'til you drop with quality! They have a chat room, information about events and gear that DJs and aficionados alike need. Definitely use Netscape though, otherwise you'll miss the full effect. As they say in Canada..."She's a beauty, eh?"
Webmaster: New Media Concepts, Inc.
★★★

GIANT STEP
http://www.giantstp.com
The first words to come out when you hit this site is, "Golly Gee is the Groooooveeeey." Reminiscent of an old *Fat Albert* scene, Giant Step introduces you to the joys of down-tempo and groovy music like

Massive Attack and Groove Collective. You can check out what's up-and-coming with the label, what's going down in local clubs, maybe enter a contest or two, or even grab great threads from their Clothing sub page. The only problem is that you can't listen to or download anything. But with the future comes...??? Overall, a pretty good vibe and layout. It's swank.
Webmaster: The Groove Academy
★★★

GROOVE RADIO
http://www.grooveradio.com
Dedicated to many genres of music, Groove Radio has everything for the popular music aficionado. There's everything from what's currently "the goods" in Europe, to reggae, to the ever-popular vibe of house music. RealAudio-equipped and streaming in with what's happening on the music front in Los Angeles' 103.1 FM, you're able to jack in with a great house mix, featuring a special guest DJ each week, as well as plenty of other goodies. It's really yummy. Take the trip. It's more refreshing than Certs.
Webmaster: Groove Radio
★★★★

INBEAT RECORDS
http://www.inbeat.com
I absolutely adore the intro to this site. This little hottie pops up in a swank outfit and wicked music chimes in instantly. CHOICE. What seems to be everything except an online record store, is exactly that, but with great taste. There are sections profiling a brief history of the shop, "hype" spilling the most up-to-date "411" [info], a Top 10 section with downloadables, as well as other goodies. Fantastic execution with style and class. The ultimate in props out.
Webmaster: inbeat records
★★★★

MIXMAN
http://www.mixman.com
Now this is a real great place to visit if you're interested in the world of "mixed" or DJ music. Mixman is an interactive "game" where you

become the DJ and have an arsenal of tracks to mix together into your own little continuous barrage. In addition, there's a "listening room" where you can taste the treats, as well as reviews of the game, and even an ftp to download a demo. The only glitch is the demo is presently PC-only [soon to-be-remedied]. Great graphics and fantastic links to wherever you may want to go for music. A definite must-see.
Webmaster: Mixman Technologies, Inc.
★★★★★

NETMIX
http://www.netmix.com
This site made me so happy when I stumbled across it. Dubbed, "netmix," it's the best stab, I've yet to see, for music on-demand...with quality. Using the increasingly popular RealAudio, the kids at "netmix" make available fantastically solid one-hour house music mixes by internationally renowned DJs. Updated weekly, although the new artist supposedly featured wasn't [three days after the scheduled change-over], styles of music range from extremely happy, smiley house, to deep, dark and blippety techno. Production quality is fantastic and the site speaks to you like it's your best friend guiding you through the different features.
Webmaster: Internet Technologies Group, Inc.
★★★★

TECHNOHOUSE
http://www.technohouse.com
An up-and-coming server for Techno and House music, the Technohouse site has all the makings of a great place to feature DJs and performers alike. There is a posting site for clubs and one-off event reporting. Even cooler is the offer to those who choose to try something new on the Web.

The service will provide free space for an idea that has promise...great concept. Graphics are choice and RealAudio is available on the DJ-performed mix selection. The selection just needs to be broadened. Keep an eye out for this one in the future.
Webmaster: daniel@technohouse.com
★★★

TURNTABLE MEDIA
http://www.turntable.com
This, by far, is the most ingenious and creative site I've seen yet for music. "Turntable" is an extremely interactive site, utilizing fantastic Shockwave applets. There are downloadable music samples and video clips as well as a virtual "studio" that you can enter and fool around in via Quicktime VR. My definite fave was the Scratch Pad link. It's a sub page that offers you this groovy interactive Shockwave-rendition of a record turntable. After downloading one of two music clips, you can play and scratch "virtually," via mouse, the song making it a nifty little distraction. A definite and very groovy "right on!"
Webmaster: Turntable Media, Inc.
★★★★★

UNOFFICIAL TB-303 HOME PAGE-COMPUTER CONTROLLED
http://infomaniak.ch/~trz/TB-303/tb303.htm
Many people don't really know much about techno music except that it sounds very electronic and fun to dance to. But to those who live it, love it and make it, the Roland TB-303, is without a doubt, the single most influential instrument to ever come along. You've heard the sound...the little blip that seems to change without changing. Well, this site opens the door to just about any aspect of the machine you would want to know, even downloadable samples and new ways to use the gizmo. If you're interested in house or techno check it out, it's a fantastic eye-opener.
Webmaster: dj terrorist
★★★★

R.S.I. PAGE

http://engr-www.unl.edu/ee/eeshop/rsi.html

Are your eyes turning into rectangles from staring at the computer monitor? It's probably a good time to visit this page. The R.S.I. (Repetitive Strain Injury) page is provided by the University of Nebraska-Lincoln (although not an official page), and contains

pictures, diagrams and explanations on how to to maximize the ergonomics of a computer set-up. The site covers everything from the symptoms of R.S.I., the hazards of video games to Carpal Tunnel Syndrome. If computers are a pain in your neck, check out the helpful hints section or opt for the easy way out—become rich enough to hire somebody else to sit at the computer.

Webmaster:mpaul@unlinfo.unl.edu

★★★★

TORONTO COMPUTES!

http://www.canadacomputes.com/forum/consumervoice/

Thinking of upgrading from an inkjet to a laser printer and want to read about the latest Hewlett Packard from somebody that owns one? Well here's the place. Wise computer consumers can post queries on this site and then wait for a critique to find out what they should purchase. Also ask a professional in "Purchasing a New Computer" or track down an ISP with unbelievably efficient technical support (does it really exist?). Plenty of product reviews as well as need-to-knows, do's and dont's in the world of computer shopping. Got a gripe with a laptop or a spreadsheet program (or perhaps, less likely, words of praise)? Release the anger from that 3 a.m. hard disk failure by posting a complaint message. Very useful and well-designed.

Webmaster: Webpath Communications

★★★

WHOOPIE!! AUDIO AND VIDEO DIRECTORY

http://www.whoopie.com/

Hunting for that audio clip of Martin Luther King's "I have a dream..." speech? Chances are, you'll find it here. Finally a friendly directory for hunting down samples of audio and video without having to muddle through an entire Web site. From Nine Inch Nails videos to a preview for *The Fan*, this site will assist you in finding sites of music videos and movie trailers through the search engine. Select from news, animation, sports, comedy and adult features (try not to access these at work unless you can

lock your door and shut the blinds). The section called "Flash" posts daily updates and "The Forum" is a discussion group about related clips that people have found on the Web.

Webmaster:webmaster@whoopie.com

★★★★★

ISDNFAQ.TXT

http://www.crimson.com/isdn/isdnFAQ.txt

If 28.8 bps is much too slow and ISDN looks more appealing, this Web site is definitely worth your while. Find the answers to some of the most common questions about typical costs and the hardware necessary for using an ISDN Internet connection. Also learn all the details about ISDN and its capabilities, including full-motion video and caller ID. ISDN may be the first step as you ween yourself off of your modem, but can't quite afford T1 or better. If you're frustrated waiting for files to download with your conventional modem and are considering an upgrade, look into this ISDN FAQ, at least until the cable companies get that multi-channel Web stuff growing).

Webmaster: cherkus@UniMaster.COM (Dave Cherkus)

★★★

IMA DVD SIG: FAQs

http://www.ima.org/../forums/imf/dvd/faq.html

It's coming! Commonly called Digital Video Disc, DVD actually stands for Digital Versatile Disc, according to its creators. Since it is the size of a conventional CD-ROM, one might expect it to be similar, but these are much more powerful, boasting 4.7 gigabytes of memory (the double-sided version will hold about 9.4 gigs). What the heck does that mean to the average user? That means that not only could you store a full-length movie, but also the letter-boxed, director's cut and pan-and-scan versions as well, not to mention the screenplay. An extensive list of all the major players and access to their home pages is also provided.

Webmaster:webmaster@ima.org)

★★★

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CODE I 10

BACKPACKING TRAVELER'S GUIDE

http://www.students.uiuc.edu/~sidle/travel.html

Bookmark this! This site is a comprehensive guide to backpacking and traveling that includes countless links on where to go, where to stay and how to do it inexpensively. The guide includes travel FAQs, hostel links, transportation resources, bed-and-breakfast locations and lots more. The site is constructed and maintained by a college student who has traveled extensively throughout the world and has apparently learned all the tricks. If you are adventurous, curious and broke, this site will help you find alternatives to the Hilton Hotel and rental car routine you've gone through a thousand times with mom and dad. Not a lot of pictures, but more content than you can read in one sitting.

Webmaster: sidle@ux4.cso.uiuc.edu

★★★★★

FIFTY CLASSIC CLIMBS OF NORTH AMERICA

http://www.dtek.chalmers.se/Climbing/Guidebooks/NorthAmerica/.FiftyClassics/

Based on the out-of-print book by the same name, this Web site functions as the Webmaster's version of the original *Fifty Classic Climbs of North America*. An image map allows you to select a particular region and learn about the difficulty level, elevation, links to guidebooks for the region, history of first ascent and "pitch" reports, and guides you through the climb and the Webmaster's personal experiences. The site doesn't contain images of the climbs or locations, but the maps are seemingly adequate. Oh yeah, the detailed descriptions also tell you how to get down from the mountain or bluff once you climb up. This site is probably most useful for those with some climbing experience.

Webmaster: opland@saifr00.ateng.az.honeywell.com

★★★★

MININ' GOLD

http://www.dnai.com/gold/

Eureka! So you are saying, "Wait, gold-mining isn't a sport." Well, you're probably right. But, the purpose of gold-mining is to get rich through exerting physical strength and endurance with a measure of strategy and competition with other "players." How is this different from basketball or football? The "Recreational Gold Prospecting and Mining Page" contains information on what mining is all about, where to do it, organizations and clubs to do it with, tools to use to do it and what to do with the nuggets once you've done it. Even if you're not currently planning your trek west, this site is an interested resource that will teach you a lot about an activity that most of us are only familiar with because of Bugs Bunny and Yosemite Sam.

Webmaster: Bill Westcott

★★★★

OFFICIAL WEB SITE OF THE ROB DEER FAN CLUB

http://www.millennianet.com/dpease/rdfc/

"All that is shall be. In the beginning there were slap hitters, and God said, 'This is no good.' He sent the Bambino, and mankind learned the lesson and spread the wisdom of the lofted ball. But then amidst the evil, fey, dopey ways of hippiedom and the '60s, false prophets of pitching and speed and the live sacrifice of virgin outs appeared among the people. For long these heresies survived, until God looked upon the game and said again, 'This is no good.' He sent man a prophet. He sent man a slugger. He sent man the Deer." What's this site about? More of what you just read—plus more statistics than any human should have to endure regarding major league .180 average baseball player, Rob Deer.

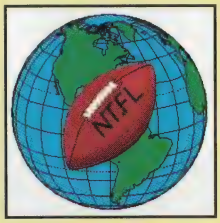
Webmaster: Dave Pease

★★★

THE NATIONAL TOUCH FOOTBALL LEAGUE

http://www.ntfl.com/

This is not just a fan site telling you how to play touch football. The NTFL home page gives you tournament information, the history of the NTFL and lots of competition and league news. The organization is based in St. Louis, Mo., and features a self-portrait of their group, a really busy background pattern and page design and links to their sponsors. The background pattern on each of the pages makes the content very difficult to read, but sort of like a subway or bus station, if you really need to be there, you'll tolerate the shortcomings.



Webmaster: B Doane

★★★

PRINCETON UNIVERSITY OUTDOOR ACTION HOME PAGE

http://www.princeton.edu/~rcurtis/oa.html

This site is the whole shebang. There is so much great content here that you won't know where to start. The catch is that the Outdoor Action program (OA) is a Princeton University project and lots of the programs featured are for students, alumni and faculty only. However, many outdoor resource links to weather, travel, skiing, natural history, related publications sites and more are useful to anyone seeking outdoor activity advice and ideas, student or not. A lot of the information here is available via ftp. Many of the activities listed are exclusive to East Coast locations, but some national regions are included. First aid and equipment information is thorough and well-written. Mostly textual.

Webmaster: Rick Curtis

★★★★★

ROPERS KNOTS PAGE

http://huizen.dds.nl/~erpprs/kne/kroot.htm

This charming little site contains an alphabetical listing of Web knots. From "stoppers" to "hitches," this site doesn't just tell you how to tie the knot, it illustrates the knots featured and explains the most practical use for each. If you happen to have a lot of time on your hands, you can click through the alphabet discovering sheetbends, cat's paws, palomar knots and grannys. The site is well-designed and filled with hours of potential Boy Scout projects. You may not be able to learn to tie a neck-tie or a shoestring here, but you will learn how to loop a noose. (Insert disclaimer here.) Links to many books and other knot sites available.

Webmaster: erpprs@dds.nl

★★★★★

SKY SURFING

http://www.frc.ri.cmu.edu/~belboz/skydive/skysurf.html

What could be better than combining two already developed sports to create a new one? The concept has been played out in beer commercials, but is an actuality if you take up sky surfing. This sport entails attaching a board to your feet and jumping out of a plane, and this Web site tells you how to do it. Written in outline form, this lesson guides you through equipment, skydiving prerequisites, aerodynamics, training, exits and maneuvers, freefall practice exercises, how to handle emergencies and more. The site is textual, so you won't have any visuals to assist your learning. However, the information here is incredibly thorough and well-informed, as it is written by experts in the field.

Webmaster: belboz@ri.cmu.edu

★★★★

SWISS BALLOONING

http://www.swissballoons.ch/index.htm

High and away. It's Swiss, but you can read it in English, German, French or Italian—the beauty of close borders. This site contains general information about hot air ballooning, images of Swiss balloons, links to numerous ballooning sites on the Web and a guide to ballooning pilots in Switzerland. The site is simply designed and easy to navigate, leaving you feeling serene and satisfied, much like the experience of actually riding in a balloon, without the whole going up in the air thing. The links include club and ballooning organization information as well as books and instruction resources.

Webmaster: hfunk@spectraweb.ch

★★★

TAPER & SHAVE

http://www.taper-shave.com/

Taper & Shave is the home of championship swimming information on high school, college, club and international levels. The site has images and text detailing standings, Olympic results, news in the swimming world and more. This Web site is the online companion to a print publication that has been around since 1990 and may very well bow out of the race to let the online zine flourish. Taper & Shave is very easy to navigate with a well-designed home page and clear index of links. If you are not a swimming participant or enthusiast, this site may be Greek to you, but if swimming is your raison d'etre, you'll be happy here.

Webmaster: tapershv@ix.netcom.com

★★★★

CORRUPTION IN AMERICA

http://www.europa.com/~johnlf/

Dedicated to exposing corruption in the United States, this site includes a critic's-eye view of the U.S. government, business, the courts, the media and the church and is not for the faint of heart. Some of the material may seem a bit outlandish, and in that case just consider its entertainment value. You'll witness angles the mainstream media commonly fails to report on. Here's a small sample of some of the type of topics presented: The Oklahoma City bombing blackout, Vincent Foster's murder, Satanism in top government circles, the missile attack of TWA 800, Waco, Ruby Ridge, CIA drug running, FBI corruption, FDA fraud and much, much more. We found most of the topics contained painstaking detail and solid research with sources cited.

Webmaster: johnlf@europa.com

★★★★★

CYBERCIVICS—POLITICS AND THE INTERNET

http://www.computerservices.com/users/bartelli/index.htm

A college senior constructed this page to aid his thesis on Politics and the Internet and did a decent job. It includes lots of links, Washington e-mail addresses, news sources, cool quotes, Cybercivic links, political search engines and more. The site was designed for the discussion of politics and the Internet so netizen's input is needed and greatly appreciated by the Webmaster. The layout of the page is clean, colorful and vivid. It's fun to navigate through the menu and locate specific information and discussions that are of interest to you referring to politics and the Net. While this site is solid entertainment for everyone, students are especially encouraged to take a look.

Webmaster: quixotic@netxpress.com

★★★

DCI NEWS

http://www.dcinews.com/

DCI is interactive politics, news and entertainment with an edge. Digital interactive news gives a refreshing and interesting perspective to the political news of the day, undercutting satire from the halls of Congress to the White House press briefing room. Team DCI claims, like many other news services, to be on the forefront of Internet reporting; they may not be the front-runner, but they certainly place or show. An example feature is a DCI exclusive interview with CIA legend Bill Colby (the final interview before his death). Good quality images and lively graphics make DCI a good alternative to mainstream press. Other segments include: Pop politics, Op-Ed, news releases and press clippings.

Webmaster: microzen@dcinews.com

★★★★

ELECTNET

http://el.com/GOV/home.htm

Spectacular! Graphics and format actually make tracking election results fun and enjoyable. A comprehensive listing of all links to state governors, U.S. Senators and U.S. House of Representatives. Also links to local incumbent officials, candidates and political organizations with bulletins on all the key races, polls, primaries and elections, state by state. A graphical map makes it easy to point and click for more information. Very impressive graphics, indexes and content. Perhaps more entertaining than the election itself.

Webmaster: jack@e1.com

★★★★★

THE ELECTRONIC ACTIVIST

http://www.berkshire.net/~ifas/activist

The Electronic Activist is an impressive e-mail directory for the U. S. Congress, state governments, media executives and other contacts. This is an extremely valuable resource to say the least. We found the format organized and very user-friendly. You can also contact The White House, Vice President's Office, Democratic National Committee, Republican National Committee, *Newsweek*, *USA Today*, *US News and World Report*, *Time*, Rush Limbaugh, G. Gordon Liddy, NBC News and more. This site is a must-bookmark for anyone involved or interested in the body politic.

Webmaster: ifas@berkshire.net

★★★★★

EVOTE!

http://www.evote.com/

Evote! is an Internet political network. Non-partisan news, information and commentary that's unique, lively and has a style all its own can be found here, so if you're a political junkie, welcome home. The Evote! national news desk provides 24-hour political coverage and up-to-the-minute late-breaking news. However, the most outstanding feature of Evote! is the superb political polls. Graphic enhancements make them fun to follow and exciting, so you won't fall asleep. Bookmark this site and return often; they want your opinion and your vote.

Webmaster: webmaster@evote.com

★★★★

THE HOME PAGE OF J. ORLIN GRABBE

http://www.aci.net/kalliste/

People have said he's a basket case, others swear he's a genius, we think his home page is well thought through and filled with presentations and views that hold your attention. He's informed, or at least appears to be, and presents facts and documentation about current events the network stooges refuse to touch or discuss. Mena Arkansas drug running, TWA 800 missile attack, Waco, Filegate, Travelgate, Iraqi bombing raid, Western state blackouts and more. Whatever your political views, Grabbe's page deserves a visit.

Webmaster: kalliste@aci.net

★★★★

HIGHTOWER RADIO

http://www.essential.org/hightower/

Jim Hightower is the much-talked-about Populist from Texas, known for his wit and "fighting spirit." Many claim he's a fruitcake, others live for his daily radio show and commentary. Regardless of your political stance, you'll be amused, entertained, perhaps even educated. You'll leave his site with a little more information about the issues of the day, at least as seen through the eyes of Jim Hightower. The Web site presents capsule transcripts from the current radio show as well as an archive of past shows.

Webmaster: hightower@essential.org

★★★

INTERPOL

http://www.interpol.com/interpol/index.html

This is not the international police site. It's one of the most talked about political polling sites on the Internet. It's pretty straightforward and they've made it simple to vote on elections and political issues of the day. The results are often quoted on the Internet, talk radio and in alternative newspaper columns. You can see voting results almost instantly. There's also a very good discussion area and feedback section. If you want to get a snapshot of the way Internet surfers are leaning, politically, this is it!

Webmaster: jimh@jged.com

★★★★

NET: THE POLITICAL NEWS TALK NETWORK

http://net.fcref.org/default.html

NET is an exclusive political talk network that broadcasts 24 hours a day and posts to their Web site regularly as well. We wouldn't call it cutting-edge, but it has lots of alternative news and commentaries. We found their Federal News Source section quite worthy of mention, as well as the American Investigator, which uncovers stories that are unique and sometimes controversial. Campaign '96 coverage is some of the best coverage available. The NET Store has items with the NET logo, in case you become so enthused about the site that you want to advertise for them. The site tries to cover too much and in the process gets very little done. They should focus their attention on specific areas. The writing is good 'nuff though.

Webmaster: webmaster@nettalk.com

★★★

THE OTHER SIDE

http://www.otherside.com/

The Other Side of the news is a newspaper column too conservative for the mainstream press. It's written and published in America's heartland, in Monmouth, Ill. The column is updated weekly and is intensely conservative. Good articles on Barry Seal and drug running in Arkansas, corruption in the federal government and covert operations are an example of the type of features you'll find in this serial article. We found the features, for the most part, well-written and informative. However, much of the information can be found in conservative publications long before it's published at this site so it tends to be a bit dated.

Webmaster: tosadmin@otherside.com

★★

ACTION GIRL'S GUIDE TO FEMALE ACTION FIGURES

http://users.aol.com/sarahdyer/index.htm

Here is a stunning and comprehensive list of "female characters from television, movies, comics or even simply generated for a toy line." There is information given on the original release date, the size of the toy and sometimes, notes of interest. Some figures also have images that can be viewed. There are also "non-action figures" listed, with such items as fast-food giveaways, bendies and PVCs, figures from other countries and a "missing in action" list, featuring female figures that were never made, but we wish they were (like various Princess Leias) or only made it to prototype phase (SuperGirl, Batgirl and the Wonder Woman line that never came out). Action Girl also picks out her favorite figures. This page is a great resource for any toy collector.

Webmaster: Sarah Dyer

★★★★

ANONYMOUS AUD'S E-MAIL DEATH THREATS

http://www.sirius.com/~rik/aud5a.html

Like most people using the mighty e-mail system, you've wanted to send out death threats to friends, family and public figures. But you're not hacker enough to figure out how to get your return e-mail address off the message. Well, this page is for you! Just fill in the e-mail address, choose your weapon and hit the send button, and your death threat is magically sent. It's just that easy! There are also some links to similarly designed, and equally odd Web sites, like the "Hitler Matchmaker Page" and "Internet of the Apes."

Webmaster: Aud

★★★

APOCALYPSE COW

http://er4www.eng.ohiostate.edu/~cooperb/PinataFatala/apoccow.html

Tired of fighting demons on that Doom thing? Here is the place to download what has to be the next computer game sensation: a game where you catapult cows back and forth at your opponent across a junkyard or a volcano. Watch out for blimps, weasels and junkyard dogs. If your cows collide in mid-air, you have to make your cows box it out in the clouds. The sound effects alone make it worth the price of admission. The big downside of this game is that it's only available for PC, so all you Mac folks either have to wait, or get your IBM pals to download it.

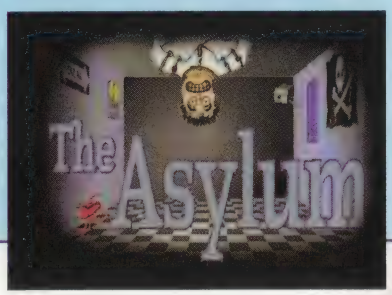
Webmaster: Brian Cooper

★★★★

THE ASYLUM

http://asylum.cid.com/

This site features a big collection of what I can only call "Internet stuff." You can play games, like the Virtual Dart Board, or play the "Dating Game" (which actually claims to pay for a date if you win), get some new DOOM levels, take the "Asylum Poll" (with questions about new Olympic events), see and hear the Asylum coo-coo clock, or play with the WWW Lite-Brite board (you can also see the gallery of past Lite-Board masterpieces). There is actually quite a bit to do and see at this site. You can even win prizes.



Webmaster: asylum@cid.com

★★★★

AUTO MATA: THE KYOTO ARASHIYAMA ORGEL MUSEUM

http://www.cjn.or.jp/automata/index.html

This site showcases 11 classic metal automotion toys made between 1870 and 1910. There are really nice graphics of these toys, and, most importantly, Quicktime movies of them in motion with the sounds of the music they make (I couldn't resist downloading the "Smoking Monkey"). There is also a small amount of information about each piece.

Webmaster: The Kyoto Arashiyama Orgel Museum

★★★

CLICKER'S CAFE

http://www.cisnet.com/clickers/

"Home of the 1.99K Breakfast!" This site is actually a links site, but it's presented in a really cool way! You "enter" the cafe, and choose where to sit. When I sat down, I was prompted to look for spare change, then dared to put the change I "found" in my mouth. When I did, I hallucinated, and then was given a list of interesting links. Then I played a game of "Guess The Food," and when I won, I was given another neat list of links. Then Elvis came over to my table and I had the choice to go with him or ignore him. Bottom line is, this is a very keen way to get started on "surfing the Web" and a fun place to visit on its own, too.

Webmaster: Sean Fulkerson & Webfusion

★★★★★

OFFICIAL LEGO WORLD WIDE WEB

http://www.lego.com/index.html

If you like LEGO (and everybody SHOULD!), then you will love this site! There is all the information any LEGOManiac could want. The design of the site is great, too, using all sorts of the little Lego people, doing little LEGO things. The neatest feature of this site is it lets you build your own home page. Just fill in a few questions, click some buttons to choose how your "home page" looks, and links that you like. You are given a number so that you can always go back to your very own page. This is a great feature for kids who are just getting started in using the Net.

Webmaster: The LEGO Group

★★★★★

THE OFFICIAL NERDITY TEST HOME PAGE

http://www.vivanet.com/~ictx/nerd/index.htm

Here are 500 questions that will determine just how much of a nerd you are. Check "yes" to the questions that apply, then hit the submit button, and your nerdity score is given to you (I got a score of 23.20 percent, answering 116 out of 500 questions "yes" giving me a rank of "Nerd-in-Training"). Most of the questions deal with how much science and math you know, and how much you know about computers (which is odd, seeing that just by looking at the page, you MUST know something about computers). The oddest questions I found were "Do you have an imaginary friend that seems more or less smarter than you?" and "Have you ever contemplated reviving the dead for sexual purposes?"

Webmaster: ictx@vivanet.com

★★★

SHAKESPEAREAN INSULT

http://www.nova.edu/Inter-Links/cgi-bin/bard.pl

Go to this page and get a new, randomly generated Shakespearean insult every time. The one I just got was "Thou paunchy beef-witted fustilarian." Why you would actually need a Shakespearean insult at any given time is beyond me, but you never know...

Webmaster: Rob Kabacoff

★★★

THAT'S MY BABY

http://www.whitehawk.com/baby/

"Doesn't Your Little One Deserve a Spotlight on the Web?" is the question asked at this site. Here's your chance to submit pictures of your baby, and look at all kinds of adorable pictures of other people's kiddies. Pictures are also arranged in categories of "Funny" pictures, "Seasonal" pictures and just the plain ol' regular baby pictures. All the pictures have funny little captions, too. Awww. This site offers exactly what the people of America demand: the chance to look at baby pictures of people they've never met!

Webmaster: White Hawk Productions

★★★

VIRTUAL FROG DISSECTION KIT

http://george.lbl.gov/ITG.hm.pg.docss/dissect/info.html

Here's your chance to relive those dreamy high school days, and dissect a "virtual" frog without that icky mess, the horrible smell or the tedious cleanup. The site is designed for scientific education, but I guess it still could be fun. You can decide what parts you want to "examine" and you can rotate the frog around. The big problem is that the images load pretty slowly. It might actually be quicker to go out and find a real frog and rip it apart.

Webmaster: David Robertson

★★★

WHAT'S YOUR FAVORITE COLOR?

http://weber.u.washington.edu/~mosaic/colors.html

Possibly one of the most asked and important questions ever: "What's your favorite color?" Pick your favorite color, and this page will tell you what that says about you sexually. The page is a little bit juvenile, but that's okay, it seems, if you keep using the phrase "*grin*."

Webmaster: Frank Provo

★★

File Edit View Go Bookmarks Options Directory Help

Netsite: http://Web_pages.we're_glad_we/can't.find!

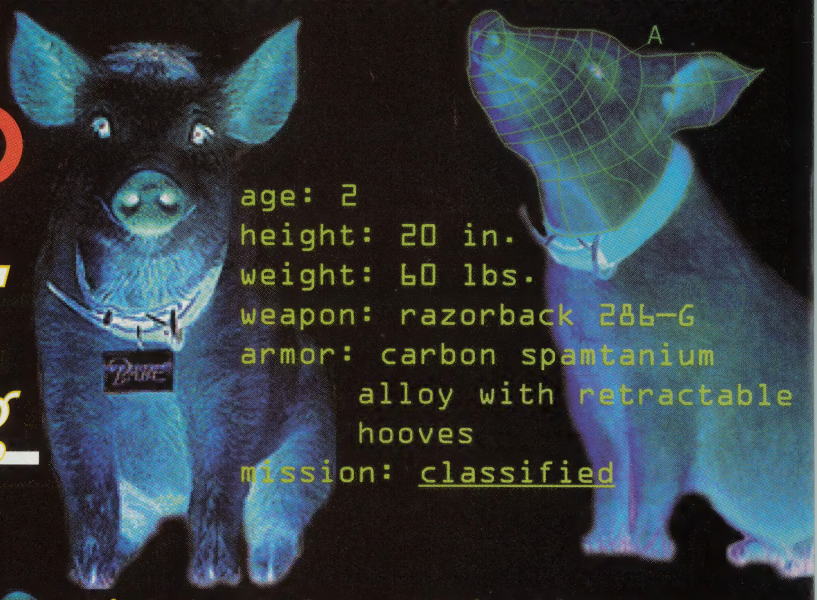
What's New! | What's Cool! | Upgrades | Net Search | Net Directory | Newsgroups | Handbook

NET-SPLOITATION PRODUCTIONS HOMEPAGE

NOW SHOWING!!!!

Babe III: Project Net Pig

THIS LITTLE PIGGY'S GOING TO TAKE YOU TO MARKET!



age: 2
height: 20 in.
weight: 60 lbs.
weapon: razorback 286-G
armor: carbon spamtanium alloy with retractable hooves
mission: classified

click here for a QuickTime preview

Babe is back and badder than ever!

The year is 2049 A.D.—information is the ultimate commodity. In this wired world gone amok, mnemonic couriers are hired in place of insecure networks to transport valuable information to end users. In a strange twist of fate, in the vein of Polanksi and Hitchcock, an ordinary cyborg pig (Babe) has his memory cache erased and is programmed with priceless information...*information worth killing for!!!* Turned into a wanted refugee courier, and lethal killing machine, Babe must use his hacker acumen and sharp pig instincts to regain his past and secure his future. It's *Johnny Mnenomic* meets *The Net* meets *Babe* in the ultimate Internet adventure of all time.

Netsploitation is an independent studio based out of Bonelick, Utah. We're hip to the info-highway and specialize in producing only the most Wham Bam Van Damme straight to video hi-tech action flicks. Check out these other hot titles from Netsploitation:

Virtual Half-A-Cop

High wire action and hijinks ensue when an old school cop (Dennis Franz) gets matched up with a virtual reality law enforcer (Macaulay Culkin), programmed with the intellect of the 100 most lethal police officers of all time.

Indecent Bandwidth

Notions of marital fidelity are turned topsy-turvy for Arnold Lippman (Woody Allen) when a billionaire (Soupy Sales) offers him one hundred dollars for a night in a chat room with his wife (Charo). How far would you go for money, for love?

Honey, I Trashed The Kids!!!

A suburban father and wacky SOMA Net inventor (Rick Moranis) accidentally zaps his children into a Eudora e-mail attachment...and mistakenly trashes it! An ordinary computer becomes an electronic jungle for four neighborhood kids, led by *Home Improvement*'s Jonathan Taylor Thomas, as they struggle to download back into the real world.

THE HARD DRIVE IN MY HEAD
Rev. Ivan Stang of
Church of the SubGenius

I would think that sooner or later,

this comparison has occurred to every heavy computer user.

For some of us, it's not an especially pretty thought.

My computer and I are about the same age, relatively. I'm 43, and will fall apart totally without constant upkeep and maintenance. If I don't exercise, take my medicine, see a sawbones now and then, I'll age into decrepitude, like Dracula when the sun hits him. That's just the way it is, starting at the moment you turn 40.

My computer is 2 years old.

In computer years, that's about 40—already over the hill, but probably with a few good years to go yet... if nobody screws up, that is. And if it was made right in the first place.

The most discomforting similarities are between the hard drive and my brain.

It was a good hard drive at first. Big too, a whole gigabyte. But now...now it's fragmented all to hell, full to the brim, beset by unexplained crashes and meaningless error messages, crammed with dozens of perfectly useless old programs that are switched on all the time for no reason. Maybe other 43-year-olds don't feel that their brains act this way, but chances are, their situation is worse and they don't know it. Can't know it. At least my system-checking system still works (I hope), so I can try to compensate.

In both my hard drive and my wetware, half of the memory is taken up with pornographic images, or else trivial old nasty thoughts about my enemies, none of which gets used any more. There are bad blocks, long stretches where NOTHING can be saved. Some of the most important files suffer from bad creation dates and damaged resource forks, or else were created by long-gone applications. Thus the 'find file' feature is practically useless. Oh, those memories are all still there, all right. In fact, they're "right on the tip of my tongue." I just can't get to them when I need 'em. Instead, they crop up when I'm searching for something else.

Strange clicks and burbles suddenly emerge from both of our chassis. Sometimes it's a warning that we're about to 'freeze up;' other times, it's simply unexplainable. And spooky as hell.

I dunno, maybe I'm identifying with the machine too much. After all, when you get down to it, it's just another tool—a glorified hammer or screwdriver. They say that it's the beginning of the end when you give your computer a cute little name. Well...ulp...mine is named Muleskinner (that's what General Custer called Little Big Man in one of my favorite novels). I'll admit at times I take its technical malfunctions quite personally, as if it were possessed with a malevolent consciousness of its own which is out to get me. Of course, 90 percent of the time, the problem turns out to be my fault. And then I feel guilty for yelling at it!

My connection to the outside world—other people and other computers—isn't what it used to be, either. It's like the server is glitchy and the Net is overloaded. There just isn't enough bandwidth anymore, anywhere. My eyes must be getting those non-virtual JPEGs in a corrupted form somehow, because I definitely ain't always seeing the same thing the sender EXPECTED me to see. And the .WAVs are all scratchy and clicky and low-res, and sound like gibberish half the time, but I never know if it's me, the sender's error, the machinery or just sunspots. Some people have to practically thrust smileys in my face so I'll know when they're kidding. And getting my own point across is increasingly difficult. I'll spew newsgroup-wards with what I THINK is a well-worded, perfectly typed, reasoned-out argument, only to see it again the next day (trailing angry responses) and reading like this: "YTOU STINKIN BASTERDS THIMK YUO KNEW EVERYTHINGF!!!! WELL GO SHGOVE IT!!! :<"

Another similarity: We both cost more than we once did. When I first began struggling with the Net, a wise man told me: "A computer is a box that, every four months, you have to pry open the top of it and shovel in money." We all know how true that is. It's equally true for a middle-aged person with a family and the attendant doctor bills, food bills, shoe bills, etc. If anything, the computer is a cheaper deal, and possibly more dutiful and respectful when the chips are down.

There are two obvious differences between the shape I'm in and that of my computer, and for those differences I give thanks daily.

1. Muleskinner wasn't made right the first time. His hard drive was bad and had to be totally replaced before the warranty was up. No one's been able to do that with me, although I'm sure some would like to.

2. Muleskinner is stained all brown and disgusting on the OUTSIDE instead of on the inside.

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